

# ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

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13

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 09/09/2021		2. CONTRACT NO. (If any) 68HERC20D0016		6. SHIP TO: a. NAME OF CONSIGNEE CAD	
3. ORDER NO. 68HERC21F0410		4. REQUISITION/REFERENCE NO. PR-OW-21-00306			
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136	
				c. CITY Cincinnati	e. ZIP CODE 45268-0001
7. TO: Andrew Parker				f. SHIP VIA	
a. NAME OF CONTRACTOR TETRA TECH, INC.				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 10306 EATON PL STE 340				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY FAIRFAX		e. STATE VA	f. ZIP CODE 220302201		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE OW	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) <input type="checkbox"/> h. EDWOSB VETERAN-OWNED ELIGIBLE UNDER THE WOSB PROGRAM					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 09/08/2022	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS	

## 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 198549560 TOCOR: Michael Elias Invoice Approver: Michael Elias Alt Invoice App: Luis Cruz-Rodriguez Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$65,174.94
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						\$65,174.94
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711				17(i) GRAND TOTAL

22. UNITED STATES OF AMERICA BY (Signature) 09/09/2021

23. NAME (Typed)  
Keith Pfeffer  
TITLE: CONTRACTING/ORDERING OFFICER

**ORDER FOR SUPPLIES OR SERVICES**  
**SCHEDULE - CONTINUATION**

PAGE NO  
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 09/09/2021	CONTRACT NO. 68HERC20D0016	ORDER NO. 68HERC21F0410
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>Admin Office:  CAD  US Environmental Protection Agency  26 West Martin Luther King Drive  Mail Code: W136  Cincinnati OH 45268-0001</p> <p>Accounting Info:  21-22-B-28H-000BD4X20-2505-2128CHH016-001  BFY: 21 EFY: 22 Fund: B Budget Org: 28H  Program (PRC): 000BD4X20 Budget (BOC): 2505  DCN - Line ID: 2128CHH016-001  Period of Performance: 09/09/2021 to  09/08/2022</p> <p>Base Year Performance - Support for the  Update of National Water Chemistry Database  and the Development of GIS Map Applications</p> <p>This Task Order is fully funded with this  award at a total Time-and-Materials ceiling  price of \$65,174.94.</p>				65,174.94	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$65,174.94



## **SECTION B - Supplies or Services/Prices**

### **B-1 Local Clauses EPA-B-32-103 LIMITATION OF GOVERNMENT'S OBLIGATION**

- (a) Severable services may be incrementally funded. Non-severable services shall not be incrementally funded. Contract line item 0001 is severable and may be incrementally funded. For this item, the sum of \$65,174.94 of the total price is presently available for payment and allotted to this item.
- (b) For items identified in paragraph (a) of this clause, the Contractor agrees to perform up to the point at which the total amount payable by the Government, including reimbursement in the event of termination of those items for the Government's convenience, approximates the total amount currently allotted for those items to the contract. The Contractor shall not continue work on those items beyond that point. Subject to the clause entitled "Termination for Convenience of the Government," the Government will not be obligated, under any circumstances, to reimburse the Contractor in excess of the amount payable by the Government in the event of the termination of applicable contract line items for convenience including costs, profit, and estimated termination costs for those line items.
- (c) Notwithstanding the dates specified in the allotment schedule in paragraph (h) of this clause, the Contractor will notify the Contracting Officer, in writing, at least 10 days prior to the date when, in the Contractor's best judgment, the work will reach the point at which the total amount payable by the Government, including any cost for termination for convenience, will approximate 85 percent of the total amount currently allotted to the contract for performance of the applicable items. The notification will state (1) the estimated date when that point will be reached and (2) an estimate of additional funding, if any, needed to continue performance of the applicable line items up to the next scheduled date for the allotment of funds identified in paragraph (a) of this clause, or to a substitute date as determined by the Government pursuant to paragraph (d) of this clause. If, after such notification, additional funds are not allotted by the date identified in the Contractor's notification, or by an agreed substitute date, the Contracting Officer will terminate any item(s) for which additional funds have not been allotted, pursuant to the clause entitled "Termination for Convenience of the Government."
- (d) The parties contemplate that, subject to the availability of appropriations, the Government may allot additional funds for continued performance of the contract line items identified in paragraph (a) of this clause and will determine the estimated period of contract performance which will be covered by the funds. If additional funds are allotted, the Contracting Officer will notify the Contractor in writing. The Contractor shall not resume performance of the contract line items identified in paragraph (a) until the written notice is received. The provisions of paragraphs (b) through (d) of this clause will apply in like manner to the additional allotted funds and to the new estimated period of contract performance. The contract will be modified accordingly.
- (e) The Government may, at any time prior to termination, allot additional funds for the performance of the contract line items identified in paragraph (a) of this clause.
- (f) The termination provisions of this clause do not limit the rights of the Government under the clause entitled "Default". The provisions of this clause are limited to the work and allotment of funds for the contract line items set forth in paragraph (a) of this clause. This clause no longer applies once the contract is fully funded.
- (g) Nothing in this clause affects the right of the Government to otherwise terminate this contract pursuant to the contract clause entitled "Termination for Convenience of the Government".
- (h) The parties contemplate that the Government may obligate funds to this contract in accordance with the following schedule:

RECAPITULATION:

**RECAPITULATION OF FUNDING TO DATE**  
**CONTRACT NO. 68HERC20D0016**  
**TASK ORDER NO. 68HERC21F0410**

**BASE Period of Performance - FROM 09/09/2021 through 09/08/2022**

<b><u>FUNDING ACTION</u></b>	<b><u>FUNDING</u></b>	
<b>Total BASE Period Amount:</b>	\$	65,174.94
Initial Incremental Funding:	\$	65,174.94
Balance Unfunded	\$	00,000.00

**SECTION F - Deliveries or Performance**

F-1 Local Clauses EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance for line item 0001 (Base Period) of this Task Order shall be from 09/09/2021 through 09/08/2022, inclusive of all required reports.

**SECTION G - Contract Administration Data**

G-1 Local Clauses EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order-Level Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Michael Elias, 202-566-0120, elias.michael@epa.gov	(TOCOR)
Luis Cruz-Rodriguez, 202-566-1095, cruz.luis@epa.gov	(Alternate TOCOR)

Contracting Officials responsible for administering this contract are as follows:

Keith Pfeffer, 513-487-2034, pfeffer.keith@epa.gov	(Contracting Officer)
Kim Loesch, 513-487-2058, loesch.kimberly@epa.gov	(Contracting Officer)
Ernie Forrest, 513-569-7414, forrest.earnest@epa.gov	(Contract Specialist)

**PERFORMANCE WORK STATEMENT AMENDMENT  
ECO CONTRACT # 68HERC20D0016  
TASK ORDER # 68HERC21F0410**

**Title: Support for the update of National Water Chemistry Database and the Development of GIS Map Applications**

**Key EPA Personnel:**

Task Order Contracting Officer Representative (TOCOR):

Michael Elias (MC 4304T)	<i>for Overnight Courier:</i>
Health and Ecological Criteria Division	U.S. EPA
Office of Science and Technology	1201 Constitution Ave., NW
U.S. Environmental Protection Agency	EPA West, 5 <sup>th</sup> Floor; Rm: 5233GG
1200 Pennsylvania Avenue NW	Washington, DC 20004
Washington, DC 20460	
(202) 566-0120	FAX (202) 566-1140
<a href="mailto:elias.mike@epa.gov">elias.mike@epa.gov</a>	

Alternate Task Order Contracting Officer Representative (TOCOR):

Luis Cruz-Rodríguez (MC 4304T)	<i>for Overnight Courier:</i>
Health and Ecological Criteria Division	U.S. EPA
Office of Science and Technology	1201 Constitution Ave., NW
U.S. Environmental Protection Agency	EPA West, 5 <sup>th</sup> Floor; Rm: 5233PP
1200 Pennsylvania Avenue NW	Washington, DC 20004
Washington, DC 20460	
(202) 566-1095	FAX (202) 566-1140
<a href="mailto:cruz.luis@epa.gov">cruz.luis@epa.gov</a>	

**Task Order Type:** Time and Materials, Severable Services

**Period of Performance:** September 9, 2021 – September 8, 2022.

**Background Information:**

The Clean Water Act (CWA) Section 304(a)(I) directs the EPA to publish aquatic life criteria recommendations that accurately reflect the latest scientific knowledge about the kind and extent of all identifiable effects on health and welfare that might be expected from the presence of pollutants in any body of water, including groundwater. Aquatic life criteria are numeric concentration limits reflecting the latest science and that are protective of human health and aquatic life. These criteria play an important role in assuring that a waters' designated uses are met.

The purpose of this Task Order (TO) is for the contractor to help EPA with 1) updating an existing water chemistry database and aquatic life criteria files and tables, and 2) developing

GIS applications presenting water chemistry parameters and derived criteria values needed to fill users' data gaps. The contractor shall complete a QA/QC of all the developed products in this TO. The materials and GIS applications developed through these activities will facilitate the adoption of EPA's published 304(a) aquatic life criteria derived using bioavailability models for metals.

## **1.0 Tasks**

### **Task 1: QA/QC of Data and Procedures**

The contractor shall perform QA/QC procedures on all input data, tables, files, and procedures completed as part of the tasks described in this TO. The contractor shall comply with the EPA approved pQAPP, associated SOPs (sQAPPs) and the EPA Information Quality Guidelines, as directed by the TOCOR.

Specifically tasks involving the use of secondary Data shall follow SOP (TT-FFX-SOP-O-001, SOP Secondary Data Management), tasks involving the use of statistical analysis of secondary data shall follow SOP (TT-FFX-SOP-O-002, SOP Statistical Analysis), and tasks involving Geographic Information Systems (GIS shall follow SOP (TT-FFX-SOP-O-003, SOP Geospatial and Data Management). See Section 2.2 below for additional information.

### **Task 2: National Water Chemistry Database Update**

EPA has compiled USGS-NWIS water chemistry data from surface waters of the continental US from 1984 through April 20, 2018 (National Water Chemistry Database). EPA will provide this water chemistry database to contractor. The water chemistry data had to meet the following data requirements to be included:

- 1) All of the following water chemistry parameters must have been measured concurrently at a sample location: Temperature, pH, DOC, Ca, Mg, Na, K, SO<sub>4</sub>, Cl, Alkalinity and Hardness,
- 2) Each location (NWIS station) was sampled 10 or more days,
- 3) Each location was sampled for at least 3 seasons, and
- 4) Each season has 2 or more sampled days.

In addition to the water chemistry parameters identified above, EPA included the following information in the database: sample date, season, state, EPA Region, ecoregion level III, ecoregion name, stream order, location name, and the stations coordinates (latitude and longitude). The resulting database currently has 681 individual locations with 38,605 records. The contractor shall make sure all NWIS stations are assigned to the correct level III ecoregion as depicted in Level III and IV Ecoregions of the Continental United States | Ecosystems Research | US EPA.

The contractor shall search the USGS-NWIS database to update the National Water Chemistry Database covering the period from 2018 through 2021. The contractor shall combine the new data with the existing data and perform QA/QC procedures on all the data within the updated file. The contractor shall comply with the EPA approved pQAPP and the EPA Information Quality Guidelines, as directed by the TOCOR.

The National Water Chemistry Database does not have sufficient data to meet the requirements enumerated above for some level III ecoregions (ecoregions 11, 16, 37, 41, 46, 60, 66, 78, 80). The USGS-NWIS database update will be used to determine if any new information exists to help fill these ecoregional gaps. However, if (following the update) the database is still not sufficient to fill out those ecoregions in the ecoregional water chemistry data files (these files will be provided to contractor by EPA as part of Task 3) for an ecoregion, EPA will then supply the contractor with tables of ecoregional water chemistry estimates for each water chemistry parameter for selected percentiles (10<sup>th</sup>, 20<sup>th</sup> and 25<sup>th</sup> percentiles). The contractor shall use the percentiles from these tables to fill in data for the ecoregions with these data in the appropriate files.

#### ***Data Source and Processing for New Data (2018-2021)***

Once all data is compiled from the USGS-NWIS database. The contractor shall:

- check data to confirm that they contain numerical values without null (missing) records,
- remove zero values from parameters, except for water temperature,
- exclude data that were reported as averages for a period greater than one day,
- exclude data for samples that are not specifically identified as surface water (streams, rivers, lakes, reservoirs, wetlands). Data from estuaries and coastal open waters are excluded,
- exclude “provisional” data (remark code P), which according to USGS “have not received the Director's approval ... and (are) subject to revision”,
- remove water temperature values greater than 100 degrees C, and
- for alkalinity, replace negative values with <0.1 mg/L, consistent with USGS procedures<sup>1</sup> for reporting hydroxide, carbonate, or bicarbonate concentrations.

#### ***Ecoregion and Stream Order Assignment for All Sampling Locations***

Sampling locations were identified by USGS 7-15-digit site number and station name. The spatial coordinates (latitude and longitude) of each sampling station are also retrieved from NWIS. The contractor shall use geographic information system (GIS) to:

- confirm that all sampling locations are within the continental United States and remove stations falling outside of the US border (e.g., locations in Canada, Mexico, etc.),

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<sup>1</sup> National Field Manual, Section 6.6, Alkalinity and Acid Neutralizing Capacity  
(<https://water.usgs.gov/owq/FieldManual/Chapter6/section6.6/html/section6.6.htm>)

- determine and assign the correct Level III Ecoregion (Omernik, 1987) for each sampling location as in Level III and IV Ecoregions of the Continental United States | Ecosystems Research | US EPA, and
- determine the Strahler stream order of the NWIS sampling locations (will need to use NHDPlus).

### ***Example of Final Product as .csv File***

Resulting update will be presented as in example table below:

Station	Date	Season	State	EPAregion	Temp	pH	DOC	Ca	Mg	Na	K	SO4	Cl	Alkalinity	Hardness	Name	Latitude	Longitude	Level III	Ecoregion	Stream
																			Ecoregion	name	Order
1049265	6/22/1999	Summer	ME		1	23.2	7.3	6.2	4.86	1.02	8.02	0.86	12.4	3.68	17	16.3 Kennebec	44.4722	-69.6839	82	Acadian Pla	6

### **Task 3: Water Chemistry Parameters and Derived Criteria Files**

#### ***Water Chemistry Files***

Once the National Water Chemistry Database is updated, the contractor shall receive a series of files from EPA that will also require updating (based on the updated National Water Chemistry Database). The files will contain tables that are listed in this TO (for future reference) and that will be provided once Task 3 begins. The tables in these files have water chemistry percentiles sorted by station, level III ecoregion, and stream order (Tables B1, B2, C, D1, D2, and D3). All data contained within these files shall be checked and updated, as necessary, using the corrected and QA/QC'ed National Water Chemistry Database (Table A 10.10.2020). The contractor shall QA/QC and update these files as necessary to ensure that ecoregional sorted files have all the correctly assigned stations necessary to calculate the ecoregional values, and that all ecoregions with data are represented (Tables B1, B2 and C). The contractor shall ensure that all stations are correctly assigned to ecoregions and that all ecoregions with station data are represented in the files (Tables D1, D2 and D3). Additionally, the contractor shall need to add a column with the ecoregion level III name to files B1, B2, C, D1, D2, and D3. The following is a list of the water chemistry file tables:

- Water chemistry parameters **sorted by ecoregion** - 10<sup>th</sup> percentile, 20<sup>th</sup> percentile, 25<sup>th</sup> percentile derived for each parameter from measured data [Represented two ways as in *Table B1 and B2*]
- Water chemistry parameters **sorted by stream order ranges** at the 10<sup>th</sup>, 20<sup>th</sup>, and 25<sup>th</sup> percentile **within ecoregion** [*Table C*]
- Water chemistry parameters sorted by station number-10<sup>th</sup> percentile of the distribution for each parameter measured from that station [*Table D1*]
- Water chemistry parameters sorted by station number-20<sup>th</sup> percentile of the distribution for each parameter measured from that station [*Example Table D2*]

- Water chemistry sorted by station number- 25<sup>th</sup> percentile of the distribution for each parameter measured from that station [*Example Table D3*]

*Each of the above bullets represents a unique file as a CSV (comma separated values). The following conditions listed apply to all files in this task. Within these files, the contractor shall ensure that:*

- *all column names are consistent across files,*
- *files do not contain units,*
- *all ions values (ions, Alkalinity, Hardness) have two significant digits, and*
- *acute and chronic criteria values should have three significant digits.*

### **National Criteria Files**

#### **Aluminum**

The files for this task were developed using the dataset containing the full measured water chemistry parameters (Table A 10.10.2020; to be provided at task initiation) as inputs to derive aquatic life criteria values with the 2018 Aluminum MLR Criteria Calculator (Aluminum Criteria Calculator R, Code R Updated: 11/15/2019). EPA will provide contractor with the calculator.

Since these files were developed prior to updating Table A 10.10.2020, the contractor shall QA/QC the files and update as needed, making sure all ecoregions with data are represented (Table E and F), and all stations are correctly assigned to a level III ecoregion (Table G). To Tables E and G the contractor shall add a column with the level III ecoregion name. The following is a list of the aluminum national criteria tables:

- Acute and chronic criteria 10<sup>th</sup> 20<sup>th</sup> and 25<sup>th</sup> percentiles by ecoregion of model outputs [*Table E*]
- Acute and chronic criteria by ecoregion separated by stream order (also at 10<sup>th</sup> 20<sup>th</sup> and 25<sup>th</sup>) of model outputs [*Table F*]
- Acute and chronic criteria by station 10<sup>th</sup> 20<sup>th</sup> and 25<sup>th</sup> percentiles of model outputs [*Table G*]

#### **Copper**

The files for this task were developed using the dataset containing the full measured water chemistry parameters (Table A 10.10.2020) as inputs to derive aquatic life criteria values with the 2007 Copper BLM V.2.2.1. Since these files were developed prior to updating Table A 10.10.2020, the contractor shall QA/QC the files and update as needed, making sure that all ecoregions with data are represented [Table E(Cu) and F(Cu)], and that all stations are correctly assigned to a level III ecoregion [Table G(Cu)]. To Tables E(Cu) and G(Cu) the contractor shall add a column with the level III ecoregion name. The following is a list of the copper national criteria tables:

- Acute and chronic criteria 10<sup>th</sup> 20<sup>th</sup> and 25<sup>th</sup> percentiles by ecoregion of model outputs [*Table E(Cu)*]
- Acute and chronic criteria by ecoregion separated by stream order (also at 10<sup>th</sup> 20<sup>th</sup> and 25<sup>th</sup>) of model outputs [*Table F(Cu)*]
- Acute and chronic criteria by station 10<sup>th</sup> 20<sup>th</sup> and 25<sup>th</sup> percentiles of model outputs [*Table G(Cu)*]

The contractor shall submit a report of the corrections/updates made to the tables in the updated files 3 weeks after receiving instructions from the TOCOR. After completion of this task, the contractor shall await instructions from the TOCOR before proceeding to the next task.

#### **Task 4: Development of GIS Applications**

EPA is developing GIS applications utilizing the files described in the previous tasks to map all NWIS stations with their respective water chemistry data and derived aquatic life criteria values. This application will display the data at the level III ecoregion and individual stations level. The contractor shall support EPA in this effort by developing a GIS map application compatible with the EPA GeoPlatform Online environment ([U.S. EPA GeoPlatform \(arcgis.com\)](https://arcgis.com)). EPA GeoPlatform Online is an online, collaborative web GIS that allows EPA staff, contractors, and collaborators to create and share maps and data internally and with the public. EPA GeoPlatform Online is EPA's organizational subscription to Esri's [ArcGIS Online](https://arcgis.com). The final objective is to develop this map/application to make it available for public use.

#### ***Display of Information on Maps***

The contractor shall develop GIS applications to display the updated data contained in the tables. Maps created in ArcGIS Pro or other GIS software either must be shared with EPA GeoPlatform Online, the final depository of the maps or the maps/applications can be created directly within GeoPlatform. The contractor shall be proficient in developing maps with relevant information in both of these GIS platforms. The base map will be a topographic map of the continental U.S. Over this topographic map of the U.S., the contractor shall add a layer with the level III ecoregions of the U.S. downloaded from [Level III and IV Ecoregions of the Continental United States | Ecosystems Research | US EPA](https://www.epa.gov/level-iii-and-iv-ecoregions-of-the-continental-united-states). These two layers will comprise the basic configuration of the GIS applications.

- A) The contractor shall develop a GIS application utilizing the file described in **Task 1** to map all NWIS stations with their respective water chemistry data. This application will display water chemistry data at the station level for each specific/selected water chemistry parameter (i.e., DOC, pH and water Hardness) in its own layer. A heat map will be used to display water chemistry data on the map for the values of water chemistry parameter selected (e.g., maximum, minimum, median, 1, 5, 10, 90, 95, 99 percentiles). Based on this structure, each layer in the map should correspond to each one of the water chemistry parameters of interest (one each for DOC, pH, and water



Hardness).

Individual station water chemistry information should be able to be displayed by the application. Accordingly, users should be able to click on a station and a pop-up window will display the station ID number, level III ecoregion, ecoregion name, state, stream order, and the water chemistry parameter values for that station. The heat map will provide a visual summary of the distribution of the selected parameters values in the U.S.

- B) The contractor shall develop a GIS application utilizing the files described in **Task 2** to map all NWIS stations with their respective water chemistry data and derived aquatic life criteria. The map content shall include layers displaying water chemistry values (10<sup>th</sup>, 20<sup>th</sup> and 25<sup>th</sup> percentiles) at both individual stations and level III ecoregions. Other layers will display aquatic life criteria values (10<sup>th</sup>, 20<sup>th</sup> and 25<sup>th</sup> percentiles) at both individual stations and level III ecoregions. Individual aquatic life criteria layers shall be made for copper and aluminum.

The water chemistry and aquatic life criteria values should display in pop-up windows when users hover the pointer and click on a station and/or a level III ecoregion. The pop-up window shall display percentile values for water chemistry or aquatic life criteria for the selected station and/or ecoregion. Each pop-up window shall also have links to additional information (other centiles, information organized by stream order range, etc.).

By clicking on a station, information on **water chemistry** values (percentiles) at the NWIS station level shall display in a pop-up window as illustrated in Fig. 1. By clicking on areas of the map representing ecoregions, the water chemistry values (percentiles) for the ecoregion shall display in a pop-up window as illustrated in Fig. 2. This same set up shall apply for the display of **aquatic life criteria** values (percentiles) for each NWIS station and for each level III ecoregion on the map, as illustrated in Figs. 3 and 4, respectively. For each metal (Al and Cu), the same set up for aquatic life criteria values display shall be developed. This application will need to have built in flexibility to be updated as EPA develops data and criteria for additional metals.

Attachment 1: PWS

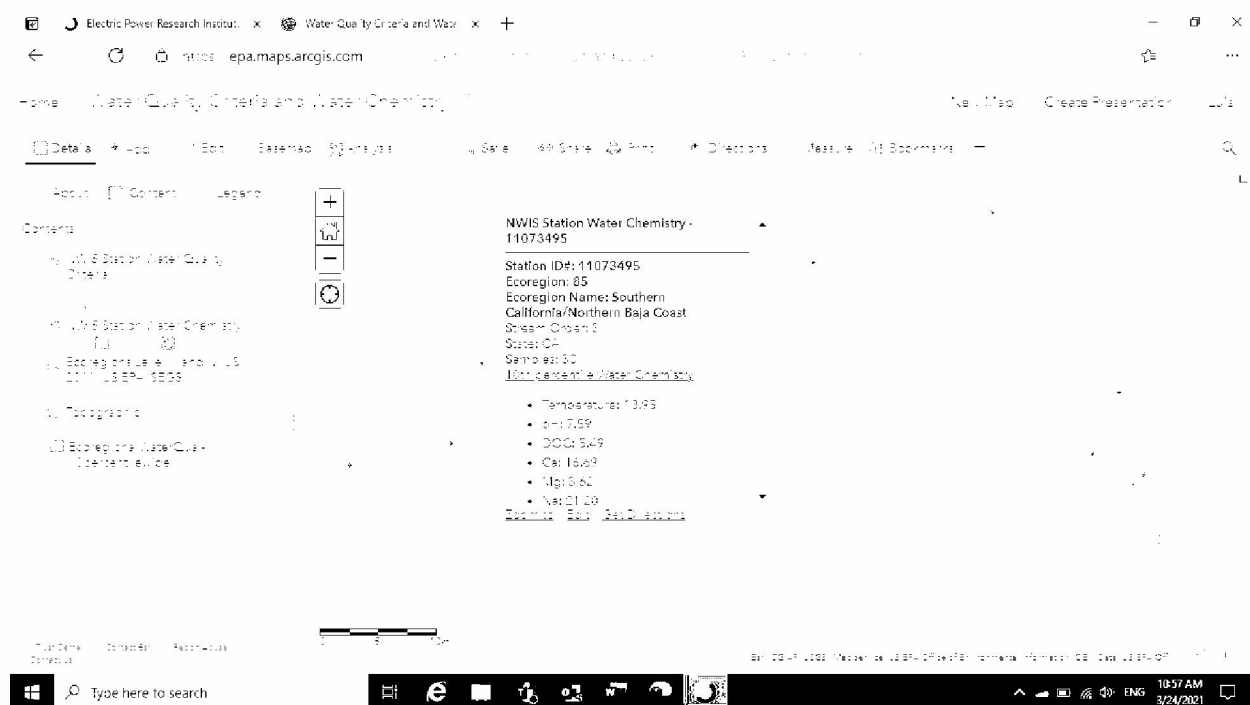


Figure 1. Station specific water chemistry parameters 10<sup>th</sup> centile values pop-up display.

## Attachment 1: PWS

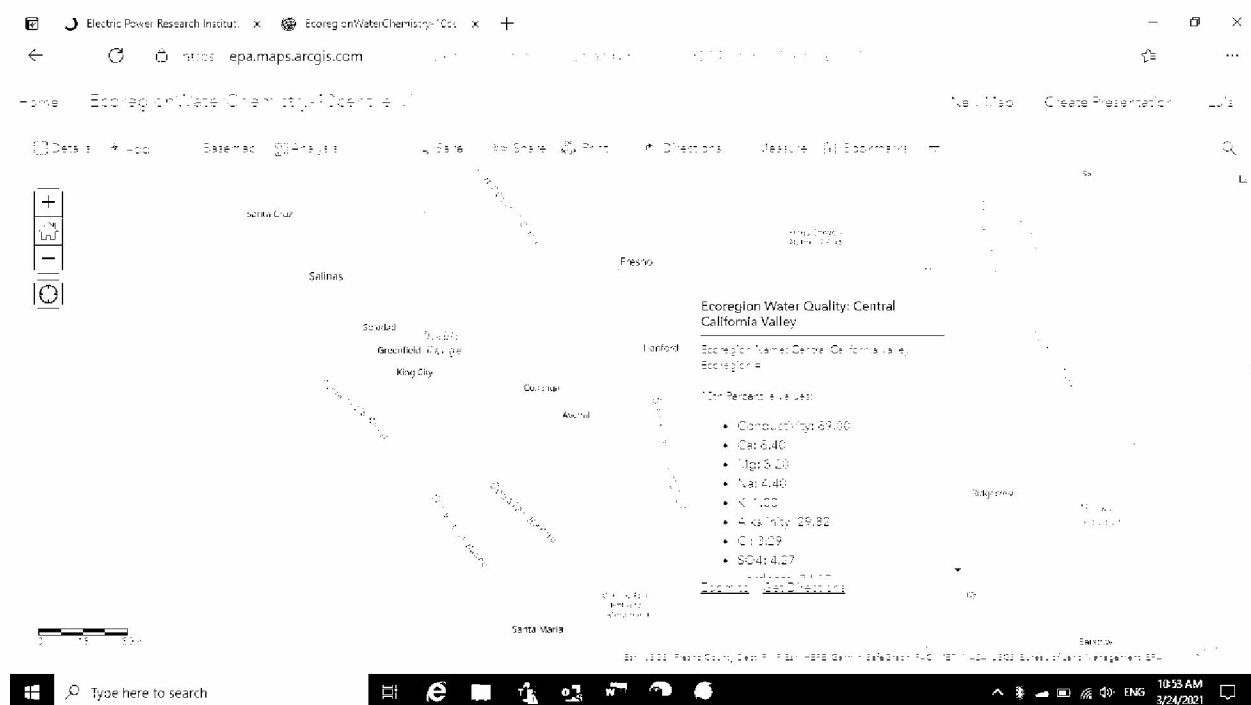
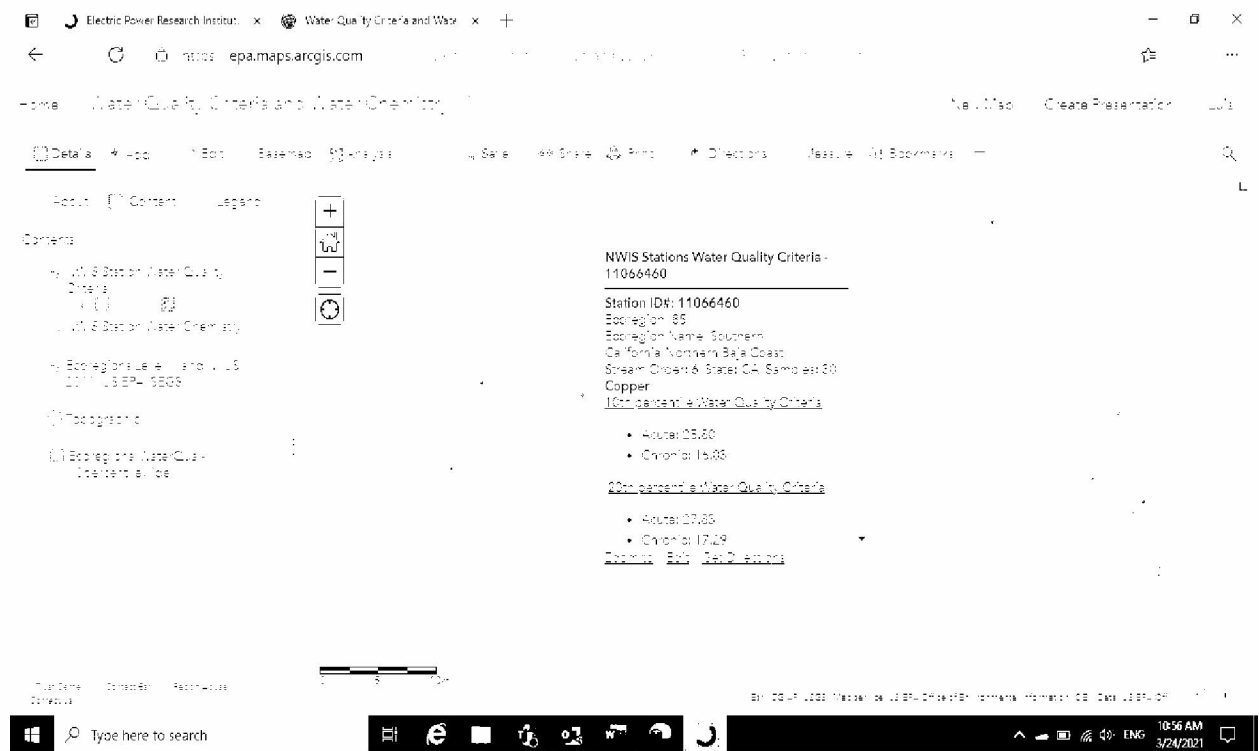


Figure 2. Level III Ecoregion water chemistry parameters 10<sup>th</sup> centile values pop-up display.

## Attachment 1: PWS



*Figure 3. Station specific aquatic life criteria values (10<sup>th</sup>, 20<sup>th</sup> and 25<sup>th</sup> centiles) pop-up display.*

## Attachment 1: PWS

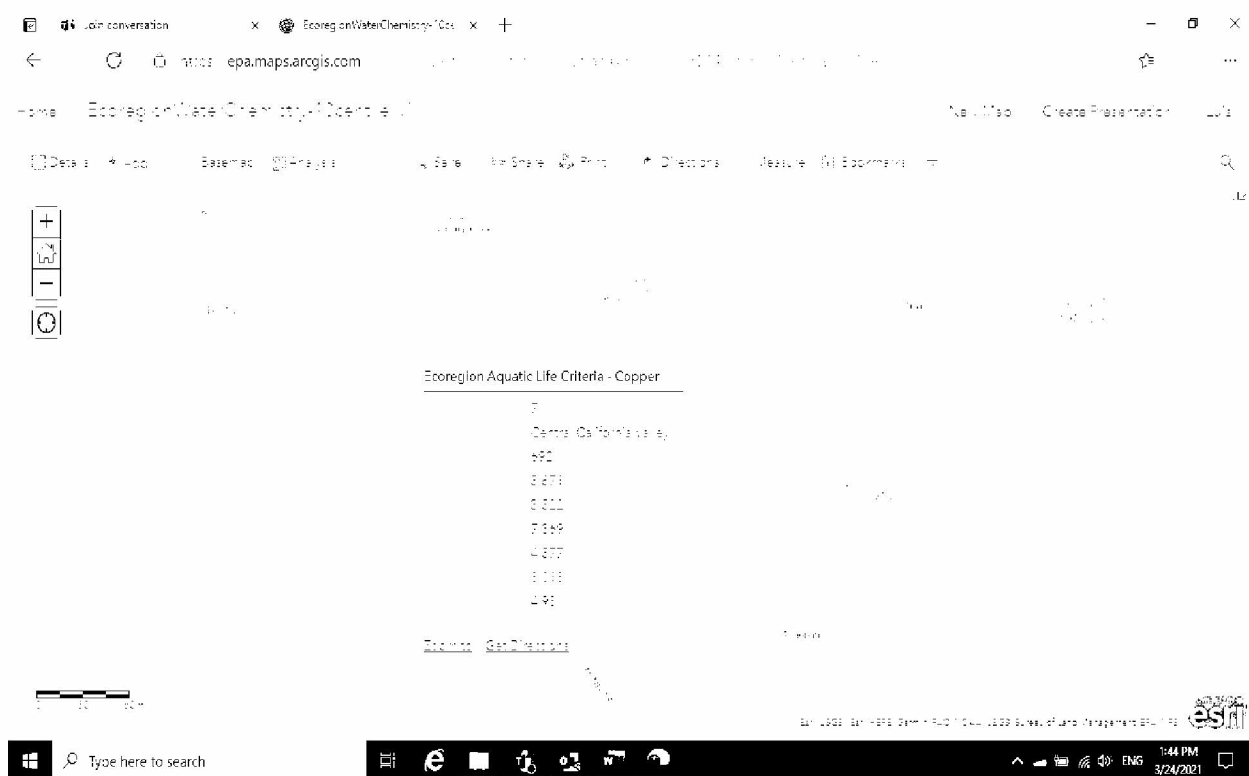


Figure 2. Level III Ecoregion Copper aquatic life criteria values (10<sup>th</sup>, 20<sup>th</sup>, and 25<sup>th</sup> centiles) pop-up display.

### Deliverables and Schedule

Task	Description	Schedule
Task 2	General water chemistry database update. Report of corrections to the updated file.	2 weeks after contractor receiving the TO
Task 3	<ol style="list-style-type: none"> <li>1) Water chemistry parameters files. Report of corrections to the tables, files, and updated files.</li> <li>2) National Aluminum Criteria files. Report of corrections to the tables, files, and updated files.</li> <li>3) National Copper Criteria files. Report of corrections to the tables, files, and updated files.</li> </ol>	3 weeks after contractor receiving instructions by the TOCOR
Task 4	Development of GIS applications	4 weeks after contractor receiving instructions by the TOCOR

## 2.0 Quality Assurance Plan/Quality Assurance Surveillance Plan

### 2.1 Data Quality Act/Information Quality Guidelines Requirements

Information contained in the approved QAPP and other documents prepared by the contractor for dissemination by the EPA shall be transparent, reproducible, and meet the requirements of the Data Quality Act for influential information. The EPA's Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency (EPA/260R-02-008, October 2002), referred to as "EPA's Information Quality Guidelines," describe EPA procedures for meeting Data Quality Act requirements. Section 6.3 of EPA's Information Quality Guidelines indicate that "especially rigorous robustness checks" should be applied in circumstances where quality-related information cannot be disclosed due to confidentiality issues.

Where applicable, the contractors should indicate which results were obtained using the tools (SOPs, checklists, and guidelines) that the contractor designates as confidential so that the EPA TOCOR can easily identify the areas that shall require rigorous robustness checks and document

that those checks have been performed. At the discretion of the TOCOR via written technical direction, the contractor may be requested to prepare a pre-dissemination review checklist. The TOCOR will provide the checklist and the OW requirements for preparation of that checklist as described in Section 5.5 of the Office of Water Quality Management Plan, February 2009 (or as updated). If this is required, the TOCOR shall notify the contractor through written technical direction.

## **2.2 Quality Assurance Project Plan**

The approved contract level (programmatic) Quality Assurance Project Plan (pQAPP) as required by 48 CFR 46, and prepared in accordance with EPA Requirements for Quality Assurance Project Plans (EPA QA/R-5) was approved on September 9, 2020.

Task Orders involving the use of Secondary Data: Task-specific quality assurance requirements for use of secondary data should follow SOP (TT-FFX-SOP-O-001, SOP Secondary Data Management) and the quality assurance requirements for use of existing data as described in OST's "Detailed Guidance for QAPP Elements in an Existing Data Project" when applicable.

Task Orders involving the use of Statistical Analysis of secondary data: If a task order requires statistical calculations and visualization of data, the contractor shall follow SOP (TT-FFX-SOP-O-002, SOP Statistical Analysis) to ensure that all analyses are correct, reproducible and transparent.

Task Orders involving Geographic Information Systems (GIS): Tasks requiring work with geospatial data and systems should follow SOP (TT-FFX-SOP-O-003, SOP Geospatial and Data Management) that incorporates quality assurance recommendations from "Guidance for Geospatial Data Quality Assurance Project Plans", (EPA QA/G-5G) for projects involving both newly collected data and data acquired from other sources.

Supplemental Quality Assurance Project Plan(s): Because this is a multiple year task order contract, the possibility of new tasks and revisions to existing tasks requiring quality assurance that may not have been covered by the pQAPP (and relevant SOPs) approved at the start of the contract's base year (year 1). Therefore, the contractor shall work with the EPA COTR and QAM/QAO (on an annual basis) to promptly identify tasks (or subtasks) that require additional quality assurance. When additional QA requirements are identified, the contractor shall prepare and submit a supplemental QAPP (sQAPP) to EPA for review and approval. The contractor may not start work on the identified tasks until the sQAPP is approved by EPA.

### Quality Assurance Surveillance Plan

The quality assurance surveillance plan (QASP; Attachment 1), pursuant to the requirements listed in this task order (TO) entitled "Support for the update of National Water Chemistry Database and the Development of GIS Map Applications". The QASP sets forth the procedures and guidelines that are used by the TOCOR in ensuring the required performance standards or

services levels are achieved by the contractor. The purpose of the QASP is to describe the systematic methods used to monitor performance and to identify the required documentation and the resources to be employed. The QASP provides a means for evaluating whether the contractor is meeting the performance standards/quality levels identified in this TO and the contractor's quality control plan (QCP), and to ensure that the government pays only for the level of services received. The TOCOR shall submit a QASP documenting the contractor's adherence to the pQAPP and QCP if deviations from the contractor's QCP occur.



### ATTACHMENT 3 QUALITY ASSURANCE SURVEILLANCE PLAN

#### “Technical Support for Assessing, Managing, and Communicating the Ecological and Human Health Risks of Contaminants in Water, Fish, and Sediments, and of Microbial Pathogens in Surface Waters”

Purpose: The requirements performed under this contract are considered performance-based, focusing on the Agency’s desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency’s performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor’s performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the “Contractor Performance Evaluation” clause in the contract). The TOCOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the Contract Level Contracting Officer’s Representative (CL-COR) in preparing the overall evaluations submitted annually in response to the CPE requirements in the contract. The TOCOR for each individual task order will provide the review of the deliverables at the location specified in the identified task order.

General Management and Administration			
Performance Requirement	Measurable Performance Standards	Surveillance Methods	Incentives/Disincentives
<b>Management and Communications:</b> The Contractor shall maintain contact with the EPA Contracting Officer (CO), Contracting Officer’s Representative (COR), and Task Order COR (TOCOR) throughout performance of the contract and shall immediately bring potential problems to the attention of the appropriate EPA TOCOR. In cases where issues have a direct impact on project schedules and/or cost, the Contractor shall provide options for EPA’s consideration on resolving or mitigating the impacts.	Any issues that impact project schedules and/or cost shall be brought to the attention of the appropriate EPA TOCOR within 3 business days of occurrence.	100% of active task orders under the contract will be reviewed by the EPA TOCOR monthly (via Monthly Progress Report) to identify unreported issues. The EPA TOCOR will report any issues to the EPA COR, who will bring the issue(s) to the Contractor’s attention through the EPA CO.	<b>Unsatisfactory</b> rating under the category of Business Relations in the Contractors Performance Appraisal Review System (CPARS) if two or more incidents occur during an applicable period of performance when the Contractor does not meet the measurable performance standards.  Fewer than two incidents per contract period where the contractor does not meet the measurable performance standard will be considered satisfactory performance and will be reported as such in the CPARS Performance Evaluation System under the category of Business Relations.
<b>Timeliness:</b> Services and deliverables shall be in accordance with schedules	During any period of performance, 90% of all submitted	100% of active task orders under the contract will be	<b>Unsatisfactory</b> rating under the category of Timeliness in the CPARS

stated in each task orders, unless amended or modified by an approved EPA action.	deliverables shall be submitted no later than one business day past the due date.	reviewed by the EPA TOCOR monthly (via Monthly Progress Report & milestones established for each deliverable) to compare actual delivery dates against the approved delivery dates. The EPA TOCOR will report any issues to the EPA COR, who will bring the issue(s) to the Contractor's attention through the EPA CO.	<p>when the Contractor does not meet the measurable performance standards during an applicable period of performance.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of <b>Timeliness</b> if the contractor meets the measurable performance standards.</p>
<p><b>Cost Management and Control:</b> The Contractor shall monitor, track and accurately report level-of-effort, labor cost, and other direct cost to EPA through progress reports and approved special reporting requirements.</p> <p>The Contractor shall assign appropriately leveled and skilled personnel to all tasks, practice and encourage time management, and ensure accurate and appropriate timekeeping.</p>	The Contractor shall manage costs to the level of the approved ceiling on the task orders. The Contractor shall notify the EPA TOCOR/COR when 75% of the approved funding ceiling for the work assignment is reached.	The EPA COR will routinely meet with the Contractor's Project Manager to discuss the work progress, and the contract and individual task order expenditures. The EPA COR shall review the Contractor's Monthly Progress Reports and request the TOCOR's verification of expenditures and technical progress before authorizing invoice payments.	<p><b>Unsatisfactory</b> rating under the category of Cost Control in the CPARS when the Contractor does not meet the measurable performance standards during an applicable period of performance.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of Cost Control if the contractor meets the measurable performance standards and accurately reports the costs in the progress reports according to the requirements in the "Reports of Work" attachment to the Contract.</p>
<p><b>Technical Effort:</b> The analyses or products developed by the Contractor shall be factual, defensible, and based on sound science and engineering. All data shall be collected from reputable sources; quality assurance measures shall be conducted in accordance with contract and Agency requirements, and any additional requirements outlined in individual task orders or technical directives. Any work requiring the Contractor to provide options or recommendations shall</p>	All (100%) analyses conducted for EPA by the Contractor must be factual and based on sound science and engineering. All analyses and products (initial and final drafts) shall conform in format and content to requirements specified by the TOCOR in written	EPA will review all analyses conducted and products prepared by the Contractor and will independently consider their merit. EPA may opt to peer review analyses to further validate their merit.	<p><b>Unsatisfactory</b> rating under the category of Quality of Product or Service in the CPARS when the Contractor does not meet the measurable performance standards during an applicable period of performance, even after review input and follow up discussion by Agency personnel.</p> <p>A satisfactory rating will be reported in the CPARS</p>

include the rationale used in selecting the option/recommendation and all other options and recommendations considered.	technical direction, and should meet the objectives stated in the task order. All initial draft documents shall be clearly written at a level appropriate to the targeted audience. All information shall be factual, technically sound, and accurate, with data sources identified.		Performance Evaluation System under the category of <b>Quality of Product or Service</b> if the contractor meets the measurable performance standards.
<p><b>Quality Assurance/Quality Control (QA/QC):</b> The Contractor shall comply with the quality assurance requirements specified in EPA Requirements for Quality Assurance Project Plans (<a href="http://www.epa.gov/quality/qs-docs/r5-final.pdf">http://www.epa.gov/quality/qs-docs/r5-final.pdf</a>) and as required by the EPA TOCOR. The Contractor shall assign appropriately leveled and skilled technical and quality assurance personnel to develop a Quality Assurance Project Plan (QAPP) for all tasks requiring collection or use of environmental data.</p> <p>The QAPP shall be developed in consultation with the EPA TOCOR, and fully approved by the appropriate EPA personnel, before initiation of activities involving environmental data collection or use.</p> <p>Any change in the planned environmental data activities that become necessary during the course of the project shall be fully documented in approved revised versions of the QAPP prior to their implementation.</p>	<p>The Contractor shall notify the EPA TOCOR of any issues that impact project quality within 3 business days of occurrence.</p> <p>The Contractor shall notify the EPA TOCOR and COR within 5 business days of occurrence of any requests to collect or use environmental data without an EPA-approved QAPP.</p> <p>The Contractor shall document all QA/QC activities, including compliance with the quality objectives specified in the QAPP, in Monthly Progress Reports.</p>	100% of active task orders under the contract will be reviewed by the EPA TOCOR monthly (via Monthly Progress Report) to assess contractor compliance with the approved QAPP, and to identify unreported issues related to project quality and requests to collect or use environmental data without an EPA-approved QAPP. The EPA TOCOR will report any issues to the EPA QAO and COR, who will bring the issue(s) to the Contractor's attention through the EPA CO for immediate resolution.	<p><b>Unsatisfactory</b> rating under the category of Quality Assurance/Quality Control in the CPARS if more than three incidents occur during an applicable period of performance when the Contractor does not meet the measurable performance standards.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of Quality Assurance/Quality Control if the contractor meets the measurable performance standards.</p>

# ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 09/16/2021		2. CONTRACT NO. (If any) 68HERC20D0016		6. SHIP TO: a. NAME OF CONSIGNEE CAD	
3. ORDER NO. 68HERC21F0425		4. REQUISITION/REFERENCE NO. PR-OW-21-00706			
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136	
				c. CITY Cincinnati	e. ZIP CODE 45268-0001
7. TO: Andrew Parker				f. SHIP VIA	
a. NAME OF CONTRACTOR TETRA TECH, INC.				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 10306 EATON PL STE 340				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY FAIRFAX		e. STATE VA	f. ZIP CODE 220302201		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE OW	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) <input type="checkbox"/> h. EDWOSB <input type="checkbox"/> i. VETERAN-OWNED <input type="checkbox"/> j. ELIGIBLE UNDER THE WOSB PROGRAM					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 09/15/2022	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS	

## 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 198549560 TOCOR: Laura Phillips Invoice Approver: Laura Phillips Alt Invoice App: Jackie Clark  Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$0.00
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						
c. CITY Durham				d. STATE NC	e. ZIP CODE 27711	\$144,500.82	17(i) GRAND TOTAL

22. UNITED STATES OF AMERICA BY (Signature) 09/16/2021

23. NAME (Typed)  
Keith Pfeffer  
TITLE: CONTRACTING/ORDERING OFFICER

**ORDER FOR SUPPLIES OR SERVICES**  
**SCHEDULE - CONTINUATION**

PAGE NO  
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 09/16/2021	CONTRACT NO. 68HERC20D0016	ORDER NO. 68HERC21F0425
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Accounting Info: 21-22-B-23D20F2-000BD4-2505-2123D2E004-001 BFY: 21 EFY: 22 Fund: B Budget Org: 23D20F2 Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 2123D2E004-001 Period of Performance: 09/16/2021 to 09/15/2022  Base Period - Water Permits Division (WPD) National Pollutant Discharge Elimination System (NPDES) Water Quality (WQ) Technical Support Product/Service Code: B528					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

## **SECTION B - Supplies or Services/Prices**

### **B-1 Local Clauses EPA-B-32-103 LIMITATION OF GOVERNMENT'S OBLIGATION**

- (a) Severable services may be incrementally funded. Non-severable services shall not be incrementally funded. Contract line item 0001 is severable and may be incrementally funded. For this item, the sum of \$144,500.00 of the total price is presently available for payment and allotted to this item.
- (b) For items identified in paragraph (a) of this clause, the Contractor agrees to perform up to the point at which the total amount payable by the Government, including reimbursement in the event of termination of those items for the Government's convenience, approximates the total amount currently allotted for those items to the contract. The Contractor shall not continue work on those items beyond that point. Subject to the clause entitled "Termination for Convenience of the Government," the Government will not be obligated, under any circumstances, to reimburse the Contractor in excess of the amount payable by the Government in the event of the termination of applicable contract line items for convenience including costs, profit, and estimated termination costs for those line items.
- (c) Notwithstanding the dates specified in the allotment schedule in paragraph (h) of this clause, the Contractor will notify the Contracting Officer, in writing, at least 10 days prior to the date when, in the Contractor's best judgment, the work will reach the point at which the total amount payable by the Government, including any cost for termination for convenience, will approximate 85 percent of the total amount currently allotted to the contract for performance of the applicable items. The notification will state (1) the estimated date when that point will be reached and (2) an estimate of additional funding, if any, needed to continue performance of the applicable line items up to the next scheduled date for the allotment of funds identified in paragraph (a) of this clause, or to a substitute date as determined by the Government pursuant to paragraph (d) of this clause. If, after such notification, additional funds are not allotted by the date identified in the Contractor's notification, or by an agreed substitute date, the Contracting Officer will terminate any item(s) for which additional funds have not been allotted, pursuant to the clause entitled "Termination for Convenience of the Government."
- (d) The parties contemplate that, subject to the availability of appropriations, the Government may allot additional funds for continued performance of the contract line items identified in paragraph (a) of this clause and will determine the estimated period of contract performance which will be covered by the funds. If additional funds are allotted, the Contracting Officer will notify the Contractor in writing. The Contractor shall not resume performance of the contract line items identified in paragraph (a) until the written notice is received. The provisions of paragraphs (b) through (d) of this clause will apply in like manner to the additional allotted funds and to the new estimated period of contract performance. The contract will be modified accordingly.
- (e) The Government may, at any time prior to termination, allot additional funds for the performance of the contract line items identified in paragraph (a) of this clause.
- (f) The termination provisions of this clause do not limit the rights of the Government under the clause entitled "Default". The provisions of this clause are limited to the work and allotment of funds for the contract line items set forth in paragraph (a) of this clause. This clause no longer applies once the contract is fully funded.
- (g) Nothing in this clause affects the right of the Government to otherwise terminate this contract pursuant to the contract clause entitled "Termination for Convenience of the Government".
- (h) The parties contemplate that the Government may obligate funds to this contract in accordance with the following schedule:

RECAPITULATION:

**RECAPITULATION OF FUNDING TO DATE**  
**CONTRACT NO. 68HERC20D0016**  
**TASK ORDER NO. 68HERC21F0425**

**BASE Period of Performance - FROM 09/16/2021 through 09/15/2022**

<b><u>FUNDING ACTION</u></b>	<b><u>FUNDING</u></b>	
<b>Total BASE Period Amount:</b>	\$	144,500.82
Initial Incremental Funding:	\$	144,500.00
Balance Unfunded	\$	0.82

**SECTION F - Deliveries or Performance**

F-1 Local Clauses EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance for line item 0001 (Base Period) of this Task Order shall be from 09/16/2021 through 09/15/2022, inclusive of all required reports.

**SECTION G - Contract Administration Data**

G-1 Local Clauses EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order-Level Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Laura Phillips, 202-564-0741, <a href="mailto:phillips.laura@epa.gov">phillips.laura@epa.gov</a>	(TOCOR)
Jackie Clark, 202-564-6582, <a href="mailto:clark.jackie@epa.gov">clark.jackie@epa.gov</a>	(Alternate TOCOR)

Contracting Officials responsible for administering this contract are as follows:

Keith Pfeffer, 513-487-2034, <a href="mailto:pfeffer.keith@epa.gov">pfeffer.keith@epa.gov</a>	(Contracting Officer)
Kim Loesch, 513-487-2058, <a href="mailto:loesch.kimberly@epa.gov">loesch.kimberly@epa.gov</a>	(Contracting Officer)
Ernie Forrest, 513-569-7414, <a href="mailto:forrest.earnest@epa.gov">forrest.earnest@epa.gov</a>	(Contract Specialist)

**PERFORMANCE WORK STATEMENT  
CONTRACT 68HERC20D0016  
TASK ORDER# 68HERC21F0425**

**TITLE:** Water Permits Division (WPD) National Pollutant Discharge Elimination System (NPDES) Water Quality (WQ) Technical Support.

**1. TASK ORDER CONTRACTING OFFICER'S REPRESENTATIVE (TOCOR):**

Laura J. Phillips  
U.S. Environmental Protection Agency  
EPA Headquarters  
Office of Wastewater Management  
Water Permits Division  
1200 Pennsylvania Avenue, NW Mail Code (4203M)  
(U.S. Postal only) 1201 Constitution Ave. N.W.  
Washington, D.C. 20460

E-mail: [phillips.laura@epa.gov](mailto:phillips.laura@epa.gov)  
Phone: 202-564-0741  
Fax: 202-564-9544

**ALTERNATE TASK ORDER CONTRACTING OFFICER'S REPRESENTATIVE  
(ALT TOCOR):**

Jackie Clark  
U.S. Environmental Protection Agency  
EPA Headquarters  
Office of Wastewater Management  
Water Permits Division  
1200 Pennsylvania Avenue, NW Mail Code (4203M)  
(U.S. Postal only) 1201 Constitution Ave. N.W.  
Washington, D.C. 20460

E-mail: [clark.jackie@epa.gov](mailto:clark.jackie@epa.gov)  
Phone: 202-564-6582  
Fax: 202-564-9544

**2. PERIOD OF PERFORMANCE:** September 16, 2021 – September 15, 2022

**3. BACKGROUND INFORMATION:** This Task Order includes new tasks and some tasks that are Phase 2 continued work from the previous contract number 68HERC20D0016 and Task Order# 68HERC20F0187 but for additional and/or different technical support requests



(e.g., Phase 2). The Water Permits Division (WPD), within the Office of Wastewater Management (OWM), is responsible for the development and implementation of the National Pollutant Discharge Elimination System (NPDES) permits program. This program regulates point source discharges of pollutants to surface waters of the United States. The Clean Water Act (CWA) and other relevant Federal statutes provide the statutory authority and basis for the NPDES permits program. The appropriate implementation of new or revised EPA criteria and State water quality standards (WQS) under the NPDES permits program is critically important for compliance with EPA's NPDES regulations and the goals of the CWA. Therefore, development of NPDES permits program water quality (WQ) guidance, providing technical support and providing NPDES training to EPA Regions/States (i.e., for WET) are an important part of the NPDES program mission.

#### **4. PERFORMANCE WORK STATEMENT (PWS):**

**TASK 0: (Contract PWS General 4.2, 4.4, 4.5, 4.6, 4.7, 7): Work Plan, Monthly Progress Reports and Quality Assurance Project Plan (QAPP) Development.** The contractor shall develop a work plan in accordance with the contract requirements. The contractor's work plan shall include a schedule, staffing plan, level of effort (LOE), and a cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. In accordance with the contract's "*Reports of Work*", the contractor shall prepare monthly progress reports must include: the monthly progress for each task and a breakout of the respective LOE hours and cost for each task in this task order. Also, the contractor must provide the LOE hours expended for the development of the Quality Assurance Project Plan (QAPP) for this task order and the LOE each month for any QAPP activities that maybe required (see item 6 of this PWS). The existing QAPP from the previous Task Order number 68HERC20F0187 can be updated and used for this Task Order.

**Task 1: (Contract PWS 1.1, 3.4, 3.13): EPA NPDES WET Program and Regional Whole Effluent Toxicity (WET) Technical Support.** Task 1 includes five Subtasks. Subtask 1 (Phase 2) is to provide continued NPDES WET technical and national programmatic support to EPA HQ and its ten Regions starting after March 2022. Subtask 2 (Phase 2) is to provide continued NPDES WET technical support for the second round or Phase2 of the project, "EPA Integrated Compliance and Information System (ICIS) parameter code and Discharge Monitoring Report (DMR) test data." Subtask 3 (New) is to provide NPDES WET technical support specifically for EPA Region 3's NPDES WPD FY21 regional allocation on addressing technical and programmatic issues for NPDES WET permit implementation and compliance. Subtask 4 (New) is to provide NPDES WET expert technical support for a EPA Region 3 and Region 9's NPDES WPD FY21 regional allocation for a combined project on implementing WET under the NPDES program, Total Maximum Daily Load (TMDL) program and ambient monitoring including using statistical approaches (i.e., Test of Significant Toxicity [TST] statistical approach). Subtask 5 (Phase 2) is to provide NPDES WET expert technical support for EPA Region 6's NPDES WPD FY21 regional allocation to address Phase 2 of EPA R6 and their states on issues concerning NPDES WET permit implementation and compliance determinations.

***Subtask 1 (Phase 2): Phase 2 - NPDES WET National Program***

Under Phase 2 of this subtask, the contractor shall provide continued NPDES WET permit programmatic and technical expert support to EPA HQ and its ten EPA Regions for a second round of comments, questions or topic areas concerning EPA Regional, state and tribal NPDES WET permits program implementation beginning after the current TO #68HERC21F0187 expires March 29, 2022. The NPDES WET program implementation topic area examples continue to include: reasonable potential (RP) determinations, independent applicability, integrated criteria, EPA WET test methods, WET data evaluation, WET data statistical analysis and interpretation, calculations, total dissolved solids, testing high saline effluent samples, pathogen interference, WET test species selection and sensitivity; monitoring approaches including frequency; and Toxicity Identification Evaluations/Toxicity Reduction Evaluations (TIEs/TREs). The contractor shall provide, if requested by the EPA TOCOR through a written technical direction, technical support on questions concerning RP determinations for toxics (chemical pollutants) too.

***Subtask 1 (Phase 2) NPDES WET National Program Deliverables:*** The contractor shall provide technical support to EPA on NPDES WET permits program based on questions or issues provided by the EPA TOCOR to the contractor. For planning purposes, the contractor shall assume that the deliverables are due to the EPA TOCOR within one week after the EPA TOCOR's written technical direction to initiate work.

***Subtask 2 (Phase 2): Phase 2 of EPA Integrated Compliance Information System (ICIS)/Discharge Monitoring Reporting (DMR) WET Parameter Project***

Subtask 2 (Phase 2) is continued work from the previous Task Order 68HERC21F0187 (ending March 29, 2022) under the same contract# 68HERC20D0016 on an ongoing project addressing issues concerning the entry of NPDES WET permit monitoring requirements and results into EPA's Integrated Compliance Information System (ICIS) database and Discharge Monitoring Report (DMR) forms. No work will occur under this subtask will begin until the completion of Task Order 68HERC21F0187 (ending March 29, 2022). At that point, the contractor shall provide expert technical support for Phase 2 of this project, as directed by the EPA TOCOR. During Phase II of this project, the EPA TOCOR, in consult with the EPA ICIS/DMR Water Permits Division (WPD)/Office of Wastewater Management (OWM) staff project leader, will communicate and coordinate review of the draft documents developed under 68HERC21F0187 with the EPA HQ's ICIS-NPDES workgroup (managed by EPA HQ and comprised of EPA and state members) and work with EPA HQ's Office of Enforcement and Compliance Assurance (OECA) to begin implementing changes identified and agreed upon with Regions and states under Phase 1 of this project. The EPA staff project leader working closely with the EPA TOCOR will continue to keep EPA HQ's WPD/OWM and the ten EPA Regions informed on all aspects of this project. The contractor shall provide expert technical support on EPA WET test methods to identify and confirm EPA WET test methods and test species associated with EPA's NPDES WET ICIS/DMR parameter codes. No entry into ICIS will be required by the

contractor. The EPA TOCOR will transmit all related information and documents to the contractor through a general E-mail or a written technical direction. The contractor shall continue to work with EPA HQ WPD staff through the EPA TOCOR on revising up to five draft documents and providing draft recommendations to EPA for addressing EPA Regional and state comments from Phase 1 of the project on draft modifications of the EPA NPDES ICIS system to enhance the use of the ICIS system for WET. For planning purposes, the contractor shall assume up to three one-hour calls with EPA, using EPA conference lines or EPA Microsoft teams meetings.

If the EPA's ICIS/DMR WET Test Data document is determined to be guidance, the contractor working with the EPA TOCOR shall ensure that all requirements of EPA's November 2020 (or any subsequent updates) and as directed by the EPA TOCOR shall be met that may require public review and comment of EPA guidance that is deemed to be significant guidance by EPA HQ and/or the Office of Management and Budget. The link for the EPA 2020 rule and relevant information can be found at: <https://www.epa.gov/laws-regulations/epa-guidance-administrative-procedures-issuance-and-public-petitions>.

**Subtask 2 Phase 2 - EPA Integrated Compliance Information System (ICIS)/Discharge Monitoring Reporting (DMR) WET Test Data Project Deliverables:** Within five business days of request by the EPA TOCOR, the contractor shall provide to the EPA TOCOR the following: updates and revisions based on EPA's Phase 2 feedback on the existing draft documents developed under Phase 1 of the project (e.g., project overview, list of parameter codes with analysis, matrix for developing codes, SOPs for code additions, parameter concerns by state/Region, associated charts and graphs) and draft recommendations to address state, Regional, and EPA HQ OECA review comments. For planning purposes, the contractor shall assume up to three one-hour calls with EPA, using EPA conference lines or EPA Microsoft teams meetings.

**Subtask 3 (New): EPA Region 3 NPDES WET Permits Program** This Subtask was requested by EPA Region 3 for expert technical NPDES WET support for Region 3 on specific Regional or State NPDES WET permit implementation questions, permit requirement challenges, and permit compliance questions. The NPDES WET expert WET technical support may include draft recommendations on questions regarding data interpretation and statistical analysis (e.g., Test of Significant Toxicity [TST] statistical approach) especially for the state of Pennsylvania's implementation approaches under the NPDES WET permits program. EPA estimates there will be 20 pages of questions or comments from EPA Region 3 which will be provided by EPA Region 3 to the EPA TOCOR who will transmit them to the contractor under a written technical directive(s). EPA estimates about up to five conference calls lasting up to one hour using EPA conference call lines or EPA Microsoft teams meetings with EPA R3 staff and/or their management.

**Subtask 3 (New) EPA Region 3 NPDES WET Permits Program Deliverables:** The contractor shall provide technical support to EPA on Region 3 through the EPA TOCOR on NPDES WET permits program-based questions or issues. For planning purposes, the contractor shall assume

that the deliverables are due to the EPA TOCOR within one week after the EPA TOCOR's written technical direction to initiate work.

**Subtask 4 (New): EPA Region 3 – Region 9 NPDES WET Permits Program** This Subtask was requested by EPA Region 3 (R3) and Region 9 (R9) for expert technical support on NPDES, TMDL and ambient monitoring of aquatic toxicity testing for a joint R3-R9 project which will require review and draft recommendations on data interpretation, statistical analysis (e.g., Test of Significant Toxicity [TST] approach) of aquatic toxicity test data, and working closely with EPA R3 and R9 through the EPA TOCOR to develop two draft documents.

The first draft EPA document that the contractor shall provide expert technical support for is for a proposed Methods Updates Rule (MUR). The contractor shall provide recommended draft language in support of EPA's developing a proposed MUR for aquatic toxicity testing to address technical issues raised during on-going challenges to EPA's recommended statistical approaches (e.g., Test of Significant Toxicity [TST]) and through the MUR to provide additional flexibility in EPA's 2002 toxicity test design when using specific statistical approaches. The contractor shall provide recommendations for explaining in as much plain English, as possible, the difference between EPA test methods (including test design) and recommended statistical approaches. The contractor shall provide expert technical support for statistical analysis and interpretation of aquatic toxicity data that will include examining toxicity testing data sets provided by EPA through the EPA TOCOR. The contractor shall provide draft recommendations for evaluating toxicity test results for quality assurance data trends and regulatory compliance purposes.

The second draft EPA document that the contractor shall provide expert technical support for is an EPA Regional Alternative Test Procedures (ATP) protocol for aquatic toxicity testing with respect to EPA's toxicity test methods (e.g., 2002 toxicity test methods at 40 CFR Part 136). The contractor shall provide expert technical support by providing draft recommendations to EPA for establishing the basis and criteria to use for comparing the performance of a proposed alternate procedure against EPA's promulgated 40 CFR Part 136 toxicity test method procedures (or an EPA final toxicity test method such as the EPA's 1995 west coast chronic marine toxicity test methods), for the purpose of determining whether or not a proposed ATP is justified for use based on a scientific and programmatic evaluation that would defensibly support EPA's decision to approve or disapprove a proposed ATP. Existing EPA draft ATP language or initial work on this draft document will be provided to the contractor through the EPA TOCOR.

As directed by the EPA TOCOR through a written technical direction, (based on incoming EPA Regional request[s]), the contractor shall develop draft technical presentation materials for EPA's review and comment in support of the development of an EPA MUR and EPA Regional ATP protocol for toxicity testing. EPA estimates there will be 20 pages of combined questions or comments from the two EPA Regions when developing the deliverable under this task that will be provided to the contractor through written technical direction from the EPA TOCOR. EPA estimates about up to six conference calls lasting up to one hour using EPA conference call lines or EPA Microsoft teams meetings with EPA Regional staff and the EPA TOCOR.

The contractor working with the EPA TOCOR shall ensure that all requirements of EPA's November 2020 (or any subsequent updates) and as directed by the EPA TOCOR shall be met that may require public review and comment of EPA guidance that is deemed to be significant guidance by EPA HQ and/or the Office of Management and Budget. The link for the EPA 2020 rule and relevant information can be found at: <https://www.epa.gov/laws-regulations/epa-guidance-administrative-procedures-issuance-and-public-petitions>.

***Subtask 4 (New) EPA Region 3 – Region 9 NPDES WET Permits Program Deliverables:***

The contractor shall provide technical support to EPA for the R3-R9 project through the EPA TOCOR. The contractor shall participate with EPA Regional staff and the EPA TOCOR using EPA conference call lines or EPA Microsoft teams meetings to provide expert technical support and draft recommendations including the technical rationale for proposed approaches for the work described in the above Subtask 4. The contractor shall develop draft technical presentation materials for EPA's review and comment in support of the development of an EPA draft MUR and EPA Regional draft ATP protocol for aquatic toxicity testing. For planning purposes, the contractor shall assume that the deliverables are due to the EPA TOCOR within one or two weeks after the EPA TOCOR's written technical direction to initiate work.

***Subtask 5 (Phase 2): Phase 2 - EPA Region 6 NPDES WET Permits Program*** This Subtask is to support Phase 2 of EPA Region 6's request for expert technical NPDES WET support on specific Regional or State NPDES WET permit implementation questions, permit requirement challenges, and permit compliance questions and will begin after the current TO #68HERC21F0187 expires (March 29, 2022). EPA estimates under Phase 2 there will be five pages of additional questions or comments from EPA Region 6 which will be provided by EPA Region 6 to the EPA TOCOR who will transmit them to the contractor under a written technical directive(s). EPA estimates about up to 2 conference calls lasting up to one hour using EPA conference call lines or EPA Microsoft teams meetings with EPA R6 staff and/or their management.

***Subtask 5 (Phase 2) EPA Region 6 NPDES WET Permits Program Deliverables:*** The contractor shall provide technical support to EPA on Region 6 through the EPA TOCOR on NPDES WET permits program-based questions or issues. For planning purposes, the contractor shall assume that the deliverables are due to the EPA TOCOR within one week after the EPA TOCOR's written technical direction to initiate work.

***Task 2 (Phase 2): (Contract PWS 1.1, 3.9, 3.13) Phase 2 - EPA HQ NPDES WET Training Courses Support.*** Task 2 is primarily for EPA HQ training courses provided to EPA Regional, NPDES State and Tribal government employees who are NPDES permit writers or who work with permit writers on developing permits for industrial and municipal facilities under the NPDES WET permits program. The focus of Task 2 is to provide NPDES WET training courses (in-person or virtual) and when additional FY22 funds are received may be expanded beyond just the current Subtask 1. Under *Subtask 1*, the contractor shall provide support to EPA Region 9 staff instructors, through the EPA TOCOR, to deliver an in-person EPA R9 NPDES WET course to the Navajo Nation in



**Arizona using course materials developed under the previous Task Order# 68HERC21F0187 under the same Contract #68HERC20D0016.**

**Subtask 1 (Phase 2): Phase 2 - EPA Region 9 NPDES WET Course, Navajo Nation (AZ).**

Under Phase 2 the contractor shall provide technical expert support to EPA Region 9 (R9) staff instructors to present NPDES WET training modules to the Navajo Nation in Arizona in 2022 during the period of performance's base year (*the date is still to be determined by EPA R9 due to current status of the reopening of the Navajo Nation's training center due to COVID-19 pandemic*). The in-person course will be for 2.5 days for approximately 8 hours the first two days and for up to 4 hours for the half-day. This Subtask is to only provide for the contractor's travel costs to the Navajo Nation's training center in AZ and one NPDES WET technical expert instructor to present one Toxicity Identification Evaluation/Toxicity Reduction Evaluation (TIEs/TREs) course module (approximately 45 minutes long) and case studies (1-2 pages in length) during the course and answer technical questions. Any inherently government-based questions will be answered by EPA R9 staff.

The TIE/TRE module and case studies to be presented were already developed under the previous TO#68HERC21F0187 under the same Contract #68HERC20D0016. The contractor shall be prepared to answer technical TIE/TRE questions that may come up during the presentation of the module and case studies on topics such as but not limited to toxic impacts from ions, ammonia, and metals due to mining or other industrial activities and also about some suggested approaches for resolving these toxic impacts.

In addition, during the course the contractor may be asked other technical questions on NPDES WET data interpretation and statistical approaches (e.g., Test of Significant Toxicity [TST] approach) but not on topics considered by EPA to be inherently government function which the EPA R9 staff instructors will answer.

**Subtask 1 (Phase 2) EPA Region 9 NPDES WET Course, Navajo Nation in Arizona Deliverables:**

The contractor shall provide one NPDES WET technical expert to travel to the Navajo Nation's training center in Arizona for a 2.5 days in-person NPDES WET course in 2022 (date still to be determined by EPA R9). The contractor shall present a TIEs/TREs module and case studies and if requested by EPA to answer technical questions on TIEs/TREs, statistical and data interpretation questions but not on topics considered by EPA to be inherently government function which will be answered by EPA R9 staff instructors at the course.

**TASK 3 (Phase 2): (Contract PWS 1.1, 3.2, 3.13) Phase 2- Expert Technical Support on Whole Effluent Toxicity (WET) Test Methods and WET Test Data Statistical Analysis Approaches.**

Under Phase 2, the contractor shall provide expert technical support regarding EPA and State NPDES permits programs, EPA toxicity test methods, and EPA recommended NPDES WET

statistical approaches to EPA HQ water offices (i.e., Water Permits Division/Office of Wastewater Management or the Engineering and Analysis Division/Office of Science and Technology) and the Office of General Counsel (OGC) on second round of questions concerning NPDES WET permit program implementation challenges especially those concerning the use of EPA's 2010 Test of Significant Toxicity (TST) statistical approach. Phase 2 of the contractor's technical support will not begin until after the current TO #68HERC21F0187 expires (March 29, 2022). EPA HQ continues to review and respond to ongoing stakeholder challenges concerning the implementation of WET under the NPDES permits program with respect to the statistical analysis of WET test data.

Under this task the contractor shall provide specific expert technical support for additional questions from EPA HQ program offices (OGC, EAD, WPD) with respect to EPA's toxicity test methods, approaches to analyzing WET test data (statistically) and the review of laboratory WET test data analytical reports. The EPA TOCOR may direct the contractor to provide expert WET technical support on draft recommendations to address NPDES WET technical questions about EPA's freshwater and/or saltwater EPA WET test methods and including explaining various statistical approaches for analyzing WET test data.

After EPA HQ and OGC staff or managers have reviewed the contractor's draft deliverables and provided review comments back to the contractor through the EPA TOCOR the contractor shall revise the draft deliverables based on the EPA comments received within two weeks of receiving EPA's review comments.

**Task 3 (Phase 2) Expert Technical Support on Whole Effluent Toxicity (WET) Test Methods and WET Test Data Statistical Analysis Approaches Deliverables:** The EPA TOCOR will coordinate the requests for expert technical support using written technical directions and to schedule conference calls or meetings. For planning purposes, EPA estimates that there may be up to three conference calls of up to one hour using EPA's conference call lines or EPA Microsoft Teams meetings.

**TASK 4 (Phase 2): (Contract PWS 1.1, 3.3, 3.13): Phase 2 - EPA Draft NPDES Whole Effluent Toxicity (WET) Program Compendium.**

Under Phase 2, the contractor shall provide technical support and expertise to the EPA HQ in preparing draft responses to the second round of EPA HQ review comments and also comments from a planned EPA Regional review on the EPA draft NPDES whole effluent toxicity (WET) compendium reference document developed under the previous TO#68HERC21F0187 under the same contract# 68HERC20D0016. Phase 2 of the contractor's technical support will not begin until after the current TO #68HERC21F0187 expires (March 29, 2022). The current draft NPDES WET compendium is a technical companion reference to the existing EPA HQ live and on-line NPDES WET permit writers course and was developed to be used by EPA Regional, State, and Tribal NPDES permit writers. Under Phase 2, as the draft document will be further revised by the contractor in response to EPA review comments and the contractor shall have a junior professional editor review the revised draft prior to sending it back to EPA. The EPA

TOCOR will review the revised draft and after any possible additional EPA review comments have been addressed by the contractor, the EPA TOCOR will then send the contractor a technical direction for when the senior professional editor should review the final draft document. For planning purposes, the EPA TOCOR estimates up to two conference calls of up to one-hour with the contractor and possibly other EPA staff using EPA conference call lines or EPA Microsoft teams meetings to discuss revisions or questions concerning this draft document. For planning purposes, EPA estimates up to two reviews of the draft document and up to 6 pages of written EPA review comments.

The contractor working with the EPA TOCOR shall ensure that all requirements of EPA's November 2020 (or any subsequent updates) and as directed by the EPA TOCOR shall be met that may require public review and comment of EPA guidance that is deemed to be significant guidance by EPA HQ and/or the Office of Management and Budget. The link for the EPA 2020 rule and relevant information can be found at: <https://www.epa.gov/laws-regulations/epa-guidance-administrative-procedures-issuance-and-public-petitions>.

**Task 4 (Phase 2) EPA Draft NPDES WET Program Implementation Summary Document Deliverables:** The contractor shall ensure that all technical revisions and editorial corrections identified in EPA reviews have been made, as appropriate, and that a professional editor has reviewed the final draft when the EPA TOCOR directs the contractor through a technical direction. A schedule will be developed by the EPA TOCOR working closely with the contractor and will be provided by the EPA TOCOR through technical direction.

**Task 5 (New): (Contract PWS 1.1, 3.4, 3.13) EPA Permit Quality Reviews (PQR) NPDES Expert Technical Support**

The contractor shall provide NPDES WET expert technical support to EPA on evaluating EPA Regional NPDES Permit Quality Review (PQR) draft reports and questions on NPDES implementation in permits especially for WET but not limited to WET (also maybe for chemistry [toxics] or nutrients). The technical support may include review of EPA Regional guidance or policy, state, or tribal water quality standards (WQS) and state Implementation Procedures (IPs) as part of the PQR reviews. The EPA TOCOR through a technical direction may provide to the contractor NPDES technical questions on EPA Regional and/or state reasonable potential (RP) determinations, data interpretation, NPDES permit calculations, statistical analysis of data, the appropriate use of EPA WET test methods, and other aspects of implementing the NPDES permits program (again especially for WET but not limited to WET) in compliance with the Clean Water Act (CWA) and EPA NPDES permit regulations, and state or tribal WQS as required under CWA Section 301(b)(1)(C). EPA estimates up to 8 pages of comments or questions that the EPA TOCOR will transmit through a technical direction to the contractor requesting NPDES WET expert technical support. For planning purposes, EPA estimates that there may be three conference calls of up to one-hour using EPA's conference call lines or EPA Microsoft team meetings for the PQR report reviews and the technical support requested by the EPA TOCOR.



### **Task 5 (New) EPA Permit Quality Reviews NPDES WET Expert Technical Support**

#### **Deliverables:**

The contractor shall provide draft recommendations on the review of draft EPA Regional and state PQRs reports and associated documents used to develop the draft PQRs. The contractor shall provide draft responses to NPDES permits program implementation technical questions. The draft PQR reports, associated documents and questions will be transmitted to the contractor through a technical direction from the EPA TOCOR. The contractor shall provide back to EPA its draft reviews and recommendations in two weeks after receiving EPA's review comments. through a technical direction from the EPA TOCOR.

### **Task 6 (Phase 2): (Contract PWS 1.1, 1.3, 3.3, 3.12, 3.13) Phase 2 - EPA Water Quality Criteria NPDES Implementation Technical Support**

Under Phase 2, the contractor will continue to provide water quality criteria (WQC) expert technical support for the NPDES permits program implementation for the EPA final 2016 freshwater ambient selenium criteria and possibly ammonia criterion. Phase 2 of the contractor's technical support will not begin until after the current TO #68HERC21F0187 expires (March 29, 2022). The contractor shall provide expert technical support on providing draft responses to additional technical questions from a second round or more of review of the draft NPDES selenium Frequently Asked Questions (FAQs) that were developed under the previous Task Order 68HERC20F0187 under the same contract#68HERC20D0016. The contractor shall provide expert technical support in revising the draft NPDES selenium implementation FAQs based on the additional review comments or questions received by the EPA TOCOR. The EPA TOCOR will transmit all review or external stakeholder comments received to the contractor. After revising the draft NPDES selenium FAQs based on the comments received the contractor will provide a revised final draft set of the FAQs to the EPA TOCOR for EPA's review and comment. EPA anticipates finalizing the draft NPDES selenium FAQs by at least December 31, 2022. The EPA TOCOR through a technical direction will provide additional schedule information when the EPA TOCOR receives more information on the Office of Science and Technology's EPA revised internal schedule for finalizing the draft selenium implementation FAQs.

In addition, under Phase 2 the contractor shall provide expert technical support for providing draft recommendations on NPDES permit implementation of EPA's 2016 freshwater ambient selenium criteria including review of state proposed selenium criteria adoption packages and NPDES permits (e.g., provided to the EPA TOCOR by EPA Regions). The contractor through a technical direction from the EPA TOCOR shall provide expert technical support through the EPA TOCOR on reviewing and providing draft recommendations to EPA on the questions and state draft approaches that EPA receives to review for EPA Regions and HQ. For planning purposes, the contractor shall assume the possibility of up to 15 pages of technical questions from EPA Regions on state approaches to implementing selenium in NPDES permits. The contractor may be requested to participate in six conference calls of up to one hour long using EPA conference call lines or EPA's Microsoft Teams meetings.

The contractor working with the EPA TOCOR shall ensure that all requirements of EPA's November 2020 (or any subsequent updates) and as directed by the EPA TOCOR shall be met that may require public review and comment of EPA guidance that is deemed to be significant guidance by EPA HQ and/or the Office of Management and Budget. The link for the EPA 2020 rule and relevant information can be found at: <https://www.epa.gov/laws-regulations/epa-guidance-administrative-procedures-issuance-and-public-petitions>.

***Task 6 EPA Water Quality Criteria NPDES Implementation Technical Support Deliverables:***

The contractor shall provide technical support on questions and review comments provided from the EPA TOCOR on the draft NPDES selenium implementation FAQs (March 29, 2022) developed under the previous Task Order 68HERC20F0187 under the same contract#68HERC20D0016. The contractor shall revise the draft FAQs in two weeks from receipt of EPA's review comments that are transmitted through a technical direction from the EPA TOCOR. The contractor shall provide recommended draft responses to technical questions sent to the EPA TOCOR from EPA Regions and their states on the implementation of selenium under NPDES permits. EPA's internal project schedule currently anticipates finalizing the draft OW NPDES FAQs by December 31, 2022. The EPA TOCOR through a technical direction will provide the revised draft OW schedule when the EPA TOCOR receives it from the Office of Science and Technology.

**5. SCHEDULE OF BENCHMARKS & DELIVERABLES:**

<b>Task/ Subtask</b>	<b>DELIVERABLE</b>	<b>Schedule</b>
	<b>Base Period</b>	
<b>0</b>	Monthly Progress Report and quality assurance	Per Contract requirements
<b>1.1</b>	<b>Phase 2 - NPDES Whole Effluent Toxicity (WET) expert national technical support to EPA HQ and Regions</b>	<b><i>Task starts after March 2022.</i></b> Discuss with TOCOR within 20 calendar days after receipt of task order. IQG checklists due with final deliverable (can be included with QA materials).
<b>1.2</b>	<b>Phase 2 - EPA ICIS/DMR Project WET Test Data Project (WPD/OWM)</b>	<b><i>Task starts after March 2022.</i></b> Due as requested by the TOCOR via written technical direction and as indicated above under Subtask 1.2.
<b>1.3</b>	<b>(New Task) NPDES Whole Effluent Toxicity (WET) expert technical support to EPA Region 3</b>	<b>Task starts upon workplan approval by EPA CO.</b> Due as requested by the TOCOR via written technical direction
<b>1.4</b>	<b>(New Task) NPDES Whole Effluent Toxicity (WET) expert technical support to EPA Region 3 and Region 9 (Regional joint project)</b>	<b>Task starts upon workplan approval by EPA CO.</b> Due as requested by the TOCOR via written technical direction

<b>1.5</b>	<b>Phase 2 - NPDES Whole Effluent Toxicity (WET) expert technical support to EPA Region 6</b>	<b><i>Task starts after March 2022.</i></b> Due as requested by the TOCOR via written technical direction
<b>2.1</b>	<b>Phase 2 - EPA Region 9 NPDES WET Course for Navajo Nation</b>	<b><i>Task starts after March 2022.</i></b> Due as requested by the TOCOR via written technical direction
<b>3</b>	<b>Phase 2- Expert Technical Support on WET Test Methods and WET Test Data Statistical Analysis Approaches.</b>	<b><i>Task starts after March 2022.</i></b> Due as requested by the TOCOR via written technical direction
<b>4</b>	<b>Phase 2 - EPA Draft NPDES WET Program Compendium.</b>	<b><i>Task starts after March 2022.</i></b> Due as requested by the TOCOR via written technical direction
<b>5</b>	<b>(New Task) EPA Permit Quality Reviews (PQR) NPDES Expert Technical Support</b>	<b>Task starts upon workplan approval by EPA CO.</b> Due as requested by the TOCOR via written technical direction
<b>6</b>	<b>Phase 2- EPA Water Quality Criteria NPDES Implementation Technical Support</b>	<b><i>Task starts after March 2022.</i></b> Due as requested by the TOCOR via written technical direction

**Draft** written deliverable(s) for review by the TOCOR shall be prepared in accordance with the schedule in the TO Schedule of Benchmarks and Deliverables.

**Final** written deliverable(s) shall be furnished in accordance with the schedule in the TO Schedule of Benchmarks and Deliverables, after written comments are received from the TOCOR.

**6. QUALITY ASSURANCE (QA) STATEMENT (Contract PWS 4.2, 4.4, 4.5, 4.6, 4.7, 7):**

A Quality Assurance Project Plan (QAPP) may be required for these Tasks: Task 1-Subtasks 1-5; and Task 3; but not for Tasks 0; Task 2, Tasks 4-6. Since some of the work requiring a QAPP is continued work from the previous Task Order 68HERC20F0187 the prior QAPP may be updated and revised pursuant to this Task Order TBD and submitted to the EPA TOCOR for review. If after the EPA TOCOR, EPA Quality Assurance Officer and EPA PO review the prior QAPP and no updates are needed for this Task Order then the prior approved QAPP will be the final QAPP. Otherwise for planning purposes if updates are needed the contractor may need to revise their prior QAPP. This approach will not only ensure consistency between the previous contract's Task Order 68HERC20F0187 and this Task Order# TBD (upon award) but also minimize unnecessary expenditures by reusing those parts of the previous QAPP which are still applicable. The contractor shall submit the revised QAPP within 3 weeks of the EPA award date for the Task Order.

**7. SPECIAL REPORTING REQUIREMENTS:** Reports shall be submitted in accordance with the contract. In addition, the contractor shall immediately notify the EPA TOCOR when 75% of the contract funding or labor hours have been utilized and shall not continue

performing work beyond the established task order funding ceiling. The contractor shall track and provide to the TOCOR in the monthly reports an accounting of all LOE hours and ODCs on QA activities for this task order. All text deliverables shall be compatible with the Microsoft Word currently used by the Water Permits Division and based on the EPA TOCOR's direction will either be delivered in an electronic format (i.e., CD) or emailed to the EPA TOCOR. Deliverables which shall be released to the public shall be 508 compliant. The contractor shall provide monthly status reports to the TOCOR via phone or E-mail and attend periodic status meetings up to once per month via EPA conference lines or EPA Microsoft Teams meetings set up by EPA TOCOR. The contractor shall not release information or comments on works performed under this Task Order without the TOCOR's prior written authorization. Wherever practicable, all written materials submitted to EPA shall be doubled-sided and on recycled paper. All computer disks and DVDs submitted to the EPA TOCOR shall be scanned for and identified as free from viruses. The contractor shall submit drafts and final products in hard copy as well as on the appropriate size disk in a format compatible with Water Permits Division hardware.

## **8. GENERAL REQUIREMENTS OF THE TASK ORDER AND SCHEDULE:**

**Limitation of Contractor Activities:** The contractor shall submit drafts of all deliverables to the TOCOR for review prior to submission of the final product. These drafts will clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources and data that support any conclusions and recommendations. The contractor shall incorporate all TOCOR comments into all final deliverables, unless otherwise agreed upon by the TOCOR. The contractor shall adhere to all applicable EPA management control procedures as implemented by the EPA Contracting Officer (CO), CLCOR, and TOCOR.

**Deliverable Formatting:** All memos, draft comments, summaries and responses, and chapters are to be provided in electronic form using Word and/or Excel/Access, ArcView, or, in special cases another software program agreed to by the TOCOR. Memos are to be written in a manner which will make them easy to conform into draft chapters for the Final Report. For deliverables that are in Word or pdf versions of Word documents, that are intended to be shared with management or the public, the contractor shall use decimal align in all tables containing columns of numbers of varying digits, whether decimal places are reported or not. All final materials, e.g., memos, chapters, etc. are to be prepared only after receiving written technical direction from the TOCOR and formatted to be in compliance with Section 508 Amendment to the Rehabilitation Act of 1973.

The Contract level COR or an authorized individual is permitted to provide technical direction. Technical direction must be within the statement of work of the contract and includes: (1) Direction to the contractor which assists the contractor in accomplishing the PWS, (2) Comments on and approval of reports or other deliverables. Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.

Work conducted under this Task Order shall not duplicate work conducted under any other Task Order or Work Assignment under any other contract. As required, the EPA TOCOR will provide technical direction in accordance with Clause H-19 of the contract, EPAAR 1552.237-71 TECHNICAL DIRECTION (AUG 2009) and the Contract Level Performance Work Statement (PWS).

**Confidential Business Information:** For this Task Order, the contractor shall not be accessing any Confidential Business Information (CBI).

**Printing:** All copying, and printing shall be accomplished within the limitations of the printing clause of the contract.

**Identification as Contracting Staff:** To avoid the perception that contractor personnel are EPA employees, the contractor personnel shall be clearly identified as independent contractors of EPA when participating in events with outside parties and prior to the start of any meeting. The contractor personnel are prohibited from acting as the Agency's official representative. When speaking with the public, the contractor shall refer all interpretations of policy to the TOCOR.

**Conference/Meeting Guidelines and Limitations:** The EPA projects that none of the individual meetings identified in these tasks will exceed a total cost of \$20,000. The contractor shall immediately notify the EPA Contracting Officer, CL-COR and TOCOR of any anticipated individual event involving support for a meeting, conference, workshop, symposium, retreat, seminar, or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

The EPA will assess Contractor performance in accordance with the Quality Assurance Surveillance Plan (QASP), Attachment 1 to this PWS.

**Attachments (1):** Contract Level QASP

**9. SURVEILLANCE PLAN:** *(discussed in the contract).* See Attachment One.

### ATTACHMENT 3 QUALITY ASSURANCE SURVEILLANCE PLAN

#### “Technical Support for Assessing, Managing, and Communicating the Ecological and Human Health Risks of Contaminants in Water, Fish, and Sediments, and of Microbial Pathogens in Surface Waters”

Purpose: The requirements performed under this contract are considered performance-based, focusing on the Agency’s desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency’s performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor’s performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the “Contractor Performance Evaluation” clause in the contract). The TOCOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the Contract Level Contracting Officer’s Representative (CL-COR) in preparing the overall evaluations submitted annually in response to the CPE requirements in the contract. The TOCOR for each individual task order will provide the review of the deliverables at the location specified in the identified task order.

General Management and Administration			
Performance Requirement	Measurable Performance Standards	Surveillance Methods	Incentives/Disincentives
<b>Management and Communications:</b> The Contractor shall maintain contact with the EPA Contracting Officer (CO), Contracting Officer’s Representative (COR), and Task Order COR (TOCOR) throughout performance of the contract and shall immediately bring potential problems to the attention of the appropriate EPA TOCOR. In cases where issues have a direct impact on project schedules and/or cost, the Contractor shall provide options for EPA’s consideration on resolving or mitigating the impacts.	Any issues that impact project schedules and/or cost shall be brought to the attention of the appropriate EPA TOCOR within 3 business days of occurrence.	100% of active task orders under the contract will be reviewed by the EPA TOCOR monthly (via Monthly Progress Report) to identify unreported issues. The EPA TOCOR will report any issues to the EPA COR, who will bring the issue(s) to the Contractor’s attention through the EPA CO.	<b>Unsatisfactory</b> rating under the category of Business Relations in the Contractors Performance Appraisal Review System (CPARS) if two or more incidents occur during an applicable period of performance when the Contractor does not meet the measurable performance standards.  Fewer than two incidents per contract period where the contractor does not meet the measurable performance standard will be considered satisfactory performance and will be reported as such in the CPARS Performance Evaluation System under the category of Business Relations.
<b>Timeliness:</b> Services and deliverables shall be in accordance with schedules	During any period of performance, 90% of all submitted	100% of active task orders under the contract will be	<b>Unsatisfactory</b> rating under the category of Timeliness in the CPARS

stated in each task orders, unless amended or modified by an approved EPA action.	deliverables shall be submitted no later than one business day past the due date.	reviewed by the EPA TOCOR monthly (via Monthly Progress Report & milestones established for each deliverable) to compare actual delivery dates against the approved delivery dates. The EPA TOCOR will report any issues to the EPA COR, who will bring the issue(s) to the Contractor's attention through the EPA CO.	<p>when the Contractor does not meet the measurable performance standards during an applicable period of performance.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of <b>Timeliness</b> if the contractor meets the measurable performance standards.</p>
<p><b>Cost Management and Control:</b> The Contractor shall monitor, track and accurately report level-of-effort, labor cost, and other direct cost to EPA through progress reports and approved special reporting requirements.</p> <p>The Contractor shall assign appropriately leveled and skilled personnel to all tasks, practice and encourage time management, and ensure accurate and appropriate timekeeping.</p>	The Contractor shall manage costs to the level of the approved ceiling on the task orders. The Contractor shall notify the EPA TOCOR/COR when 75% of the approved funding ceiling for the work assignment is reached.	The EPA COR will routinely meet with the Contractor's Project Manager to discuss the work progress, and the contract and individual task order expenditures. The EPA COR shall review the Contractor's Monthly Progress Reports and request the TOCOR's verification of expenditures and technical progress before authorizing invoice payments.	<p><b>Unsatisfactory</b> rating under the category of Cost Control in the CPARS when the Contractor does not meet the measurable performance standards during an applicable period of performance.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of Cost Control if the contractor meets the measurable performance standards and accurately reports the costs in the progress reports according to the requirements in the "Reports of Work" attachment to the Contract.</p>
<p><b>Technical Effort:</b> The analyses or products developed by the Contractor shall be factual, defensible, and based on sound science and engineering. All data shall be collected from reputable sources; quality assurance measures shall be conducted in accordance with contract and Agency requirements, and any additional requirements outlined in individual task orders or technical directives. Any work requiring the Contractor to provide options or recommendations shall</p>	All (100%) analyses conducted for EPA by the Contractor must be factual and based on sound science and engineering. All analyses and products (initial and final drafts) shall conform in format and content to requirements specified by the TOCOR in written	EPA will review all analyses conducted and products prepared by the Contractor and will independently consider their merit. EPA may opt to peer review analyses to further validate their merit.	<p><b>Unsatisfactory</b> rating under the category of Quality of Product or Service in the CPARS when the Contractor does not meet the measurable performance standards during an applicable period of performance, even after review input and follow up discussion by Agency personnel.</p> <p>A satisfactory rating will be reported in the CPARS</p>



include the rationale used in selecting the option/recommendation and all other options and recommendations considered.	technical direction, and should meet the objectives stated in the task order. All initial draft documents shall be clearly written at a level appropriate to the targeted audience. All information shall be factual, technically sound, and accurate, with data sources identified.		Performance Evaluation System under the category of <b>Quality of Product or Service</b> if the contractor meets the measurable performance standards.
<p><b>Quality Assurance/Quality Control (QA/QC):</b> The Contractor shall comply with the quality assurance requirements specified in EPA Requirements for Quality Assurance Project Plans (<a href="http://www.epa.gov/quality/qs-docs/r5-final.pdf">http://www.epa.gov/quality/qs-docs/r5-final.pdf</a>) and as required by the EPA TOCOR. The Contractor shall assign appropriately leveled and skilled technical and quality assurance personnel to develop a Quality Assurance Project Plan (QAPP) for all tasks requiring collection or use of environmental data.</p> <p>The QAPP shall be developed in consultation with the EPA TOCOR, and fully approved by the appropriate EPA personnel, before initiation of activities involving environmental data collection or use.</p> <p>Any change in the planned environmental data activities that become necessary during the course of the project shall be fully documented in approved revised versions of the QAPP prior to their implementation.</p>	<p>The Contractor shall notify the EPA TOCOR of any issues that impact project quality within 3 business days of occurrence.</p> <p>The Contractor shall notify the EPA TOCOR and COR within 5 business days of occurrence of any requests to collect or use environmental data without an EPA-approved QAPP.</p> <p>The Contractor shall document all QA/QC activities, including compliance with the quality objectives specified in the QAPP, in Monthly Progress Reports.</p>	100% of active task orders under the contract will be reviewed by the EPA TOCOR monthly (via Monthly Progress Report) to assess contractor compliance with the approved QAPP, and to identify unreported issues related to project quality and requests to collect or use environmental data without an EPA-approved QAPP. The EPA TOCOR will report any issues to the EPA QAO and COR, who will bring the issue(s) to the Contractor's attention through the EPA CO for immediate resolution.	<p><b>Unsatisfactory</b> rating under the category of Quality Assurance/Quality Control in the CPARS if more than three incidents occur during an applicable period of performance when the Contractor does not meet the measurable performance standards.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of Quality Assurance/Quality Control if the contractor meets the measurable performance standards.</p>



<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE		PAGE OF PAGES		
					1 4		
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00001		See Block 16C		PR-OW-22-00449			
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
CAD							
US Environmental Protection Agency							
26 West Martin Luther King Drive							
Mail Code: W136							
Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)		9A. AMENDMENT OF SOLICITATION NO.	
TETRA TECH, INC.							
Attn: Andrew Parker						9B. DATED (SEE ITEM 11)	
10306 EATON PL STE 340							
FAIRFAX VA 220302201							
				x		10A. MODIFICATION OF CONTRACT/ORDER NO.	
						68HERC20D0016	
						68HERC21F0425	
						10B. DATED (SEE ITEM 13)	
						09/16/2021	
CODE X38LAAB5HB64		FACILITY CODE					
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)				Net Increase:		\$20,000.00	
See Schedule							
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
X		D. OTHER (Specify type of modification and authority) FAR 52.243-3 Changes					
<b>E. IMPORTANT:</b> Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
UEI: X38LAAB5HB64							
TOCOR: Laura Phillips Max Expire Date: 09/15/2022 Invoice Approver: Laura Phillips Alt							
Invoice App: Jackie Clark							
The purpose of Modification P00001 is to:							
1. Revise the PWS for additional work with in the scope of the contract.							
2. Increase the value of the task order by \$20,000.82 from \$144,500.82 to \$164,501.64.							
3. Add incremental funding in the amount of \$20,000.00 to the task order.							
4. The obligated amount for the task order increased by \$20,000.00 from \$144,500.00 to \$164,500.00.							
5. Revise Clause EP-B32-103 Limitation of Government's Obligation and EPA-G-42-101							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Kimberly F. Loesch			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				 (Signature of Contracting Officer)		05/02/2022	
(Signature of person authorized to sign)							

NAME OF OFFEROR OR CONTRACTOR  
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Contract Administration Representatives.</p> <p>NEW ACCOUNTING CODE ADDED:</p> <p>Account code:</p> <p>22-23-B-23D20F2-000BD4-2505-2223D2E002-001</p> <p>Beginning FiscalYear 22</p> <p>Ending Fiscal Year 23</p> <p>Fund (Appropriation) B</p> <p>Budget Organization 23D20F2</p> <p>Program (PRC) 000BD4</p> <p>Budget (BOC) 2505</p> <p>Job # (Site/Project)</p> <p>Cost Organization</p> <p>DCN-LineID 2223D2E002-001</p> <p>Amount: \$20,000.00</p> <p>Payment:</p> <p>RTP Finance Center</p> <p>US Environmental Protection Agency</p> <p>RTP-Finance Center (AA216-01)</p> <p>109 TW Alexander Drive</p> <p><a href="http://www2.epa.gov/financial/contracts">www2.epa.gov/financial/contracts</a></p> <p>Durham NC 27711</p> <p>Period of Performance: 09/16/2021 to 09/15/2022</p>				

**PERFORMANCE WORK STATEMENT  
CONTRACT 68HERC20D0016  
TASK ORDER# 68HERC021F0425  
Modification P00001**

**TITLE:** Water Permits Division (WPD) National Pollutant Discharge Elimination System (NPDES) Water Quality (WQ) Technical Support.

**1. TASK ORDER CONTRACTING OFFICER'S REPRESENTATIVE (TOCOR):**

Laura J. Phillips  
U.S. Environmental Protection Agency  
EPA Headquarters  
Office of Wastewater Management  
Water Permits Division  
1200 Pennsylvania Avenue, NW Mail Code (4203M)  
(U.S. Postal only) 1201 Constitution Ave. N.W.  
Washington, D.C. 20460

E-mail: [phillips.laura@epa.gov](mailto:phillips.laura@epa.gov)

Phone: 202-564-0741

Fax: 202-564-9544

**ALTERNATE TASK ORDER CONTRACTING OFFICER'S REPRESENTATIVE  
(ALT TOCOR):**

Jackie Clark  
U.S. Environmental Protection Agency  
EPA Headquarters  
Office of Wastewater Management  
Water Permits Division  
1200 Pennsylvania Avenue, NW Mail Code (4203M)  
(U.S. Postal only) 1201 Constitution Ave. N.W.  
Washington, D.C. 20460

E-mail: [clark.jackie@epa.gov](mailto:clark.jackie@epa.gov)

Phone: 202-564-6582

Fax: 202-564-9544

**2. PERIOD OF PERFORMANCE:** 9/16/21 to 09/15/22

**3. BACKGROUND INFORMATION:** The purpose of this Task Order modification is to add two new Subtasks 2 and 3 under Task 2 for EPA HQ-Regional National Pollutant Discharge

Elimination System (NPDES) whole effluent toxicity (WET) training virtual courses. Under new Subtask 2 a virtual (via webinars) EPA HQ NPDES WET course will be done for EPA Region 1 (June 2022) and under new Subtask 3 a virtual EPA HQ NPDES WET course will be done for EPA Region 4 (August 2022). Both the EPA HQ NPDES WET virtual course sessions will be done using EPA's Microsoft teams meeting logistics provided by EPA HQ; revise and update some slides in the modules for the toxicity workshops for any EPA Regional program specifics.

#### **4. PERFORMANCE WORK STATEMENT (PWS):**

**TASK 0:** (Contract PWS General 4.2, 4.4, 4.5, 4.6, 4.7, 7): **Work Plan, Monthly Progress Reports and Quality Assurance Project Plan (QAPP) Development. No Changes.**

**Task 1:** (Contract PWS 1.1, 3.4, 3.13): **EPA NPDES WET Program and Regional Whole Effluent Toxicity (WET) Technical Support. No Changes.**

**Task 2:** (Contract PWS 1.1, 3.9, 3.13) **Phase 2 - EPA HQ NPDES WET Training Courses Support. Task 2 is primarily for EPA HQ training courses provided to EPA Regional, NPDES State and Tribal government employees who are NPDES permit writers or who work with permit writers on developing permits for industrial and municipal facilities under the NPDES WET permits program. Modification is to add two more virtual NPDES WET courses under a new Subtask 2 for EPA Region 1 (June 2022) and under a new Subtask 3 for EPA Region 4 (August 2022).**

**Subtask 1 (Phase 2):** **No Changes.**

#### **NEW Subtask 2: EPA HQ-R1 NPDES WET Technical Support (Webinar)**

The EPA requires National Pollutant Discharge Elimination System (NPDES) whole effluent toxicity (WET) expert technical support to develop and deliver (present) in early June 2022 (*approximately starting the week of June 6<sup>th</sup>*) a total of five webinar NPDES WET course sessions of approximately four hours each session provided over two weeks (*or if needed three weeks, of two sessions per week - Tuesday/Thursday*) to be presented to EPA Region 1 (R1) and their states. The topics to be covered during the webinar will be identified and discussed by the EPA TOCOR with EPA R1 staff and will be covered using existing EPA HQ NPDES WET course modules (*developed under the previous Task Order 68HERC20F0165*) with some revisions to focus on topics that EPA R1 would like emphasized during the webinar sessions. For example, EPA R1 may request emphasis on some EPA Regional, state, or tribal permitting program relevant information be incorporated into the presentation modules (*i.e., Regional, state, or tribal permit examples, data interpretation, suggested NPDES WET permit language*). The contractor shall provide up to two NPDES WET technical expert instructors to participate and present materials during these webinar sessions, along with EPA HQ instructors, on implementing WET under the NPDES permits program. For planning purposes, the contractor shall make editorial and technical revisions and updates of up to four pages to EPA HQ existing presentation materials as directed by the EPA TOCOR.

The EPA TOCOR and the contractor will coordinate with EPA R1 in preparing for the delivery of this webinar sessions. There will be one to two conference calls of up to a half hour in length with EPA R1 using EPA conference call lines or using EPA Microsoft Teams meetings. The EPA TOCOR will make the webinar session logistical arrangements including attendee registration. The webinar will be presented using EPA's Microsoft (MS) Teams meetings. If there are printed materials required for the webinar EPA will print, assemble, and ship the materials. However, since it is a webinar, EPA's current plan is that the presentation materials will be in a pdf format and will be available on a MS teams page to course participants and where necessary, E-mailed to them by the EPA TOCOR or the contractor. The contractor shall provide pdf copies of the R1 webinar attendance certificates which will be E-mailed to each of the attendees by the EPA TOCOR. If printed materials are requested by the EPA TOCOR the contractor will provide to the EPA TOCOR the final electronic files set up for EPA to be able to print.

**Task 2/Subtask 2 EPA HQ-R1 NPDES WET Technical Support (Webinar) Deliverables:**

The contractor shall provide expert technical support to EPA HQ for EPA HQ-R1 NPDES WET course webinar sessions. For this EPA HQ-R1 NPDES WET course the EPA TOCOR may direct the contractor to slightly modify the content of some of the module slides in the webinar or develop a few additional slides based on EPA R1 feedback to the EPA TOCOR. For planning purposes, the contractor shall send by E-mail the final pdf files for the EPA HQ-R1 NPDES WET course sessions to the EPA TOCOR at least one week before the scheduled date for the first webinar course session. If there are any printed materials requested by the EPA TOCOR, the contractor shall ensure that the camera-ready copies of the materials for printing includes all technical updates and editorial corrections. Other specific instructions for preparing for and delivering the webinar course sessions will be provided by the EPA TOCOR through a written technical direction E-mailed to the contractor.

**NEW Subtask 3: EPA HQ-R4 NPDES WET Technical Support (Webinar)**

The EPA requires National Pollutant Discharge Elimination System (NPDES) whole effluent toxicity (WET) expert technical support to develop and deliver (present) in mid to late August 2022 a total of four or five webinar NPDES WET course sessions of approximately three hours each provided over two to three weeks (*two sessions per week - Tuesday/Thursday*) to be presented to EPA Region 4 (R4) and their states. The topics to be covered during the webinar will be identified and discussed by the EPA TOCOR with EPA R4 staff and will be covered using existing EPA HQ NPDES WET course modules (*developed under the previous Task Order 68HERC20F0165*) with some revisions to focus on topics that EPA R4 would like emphasized during the webinar sessions. For example, EPA R4 may request emphasis on some EPA Regional, state, or tribal permitting program relevant information be incorporated into the presentation modules (*i.e., Regional, state, or tribal permit examples, data interpretation, suggested NPDES WET permit language*). The contractor shall provide up to two NPDES WET technical expert instructors to participate and present materials during these webinar sessions, along with EPA HQ instructors, on implementing WET under the NPDES permits program. For planning purposes, the contractor shall make editorial and technical revisions and updates of up to four pages to EPA HQ existing presentation materials as directed by the EPA TOCOR.

The EPA TOCOR and the contractor will coordinate with EPA R4 in preparing for the delivery of this webinar sessions. There will be one to two conference calls of up to a half hour in length with EPA R4 using EPA conference call lines or using EPA Microsoft Teams meetings. The EPA TOCOR will make the webinar session logistical arrangements including attendee registration. The webinar will be presented using EPA's Microsoft (MS) Teams meetings. If there are printed materials required for the webinar EPA will print, assemble, and ship the materials. However, since it is a webinar, EPA's current plan is that the presentation materials will be in a pdf format and will be available on a MS teams page to course participants and where necessary, E-mailed to them by the EPA TOCOR or the contractor. The contractor shall provide pdf copies of the R4 webinar attendance certificates which will be E-mailed to each of the attendees by the EPA TOCOR. If printed materials are requested by the EPA TOCOR the contractor will provide to the EPA TOCOR the final electronic files set up for EPA to be able to print.

**Task 2/Subtask 3 EPA HQ-R4 NPDES WET Technical Support (Webinar) Deliverables:** The contractor shall provide expert technical support to EPA HQ for EPA HQ-R4 NPDES WET course webinar sessions. For this EPA HQ-R4 NPDES WET course the EPA TOCOR may direct the contractor to slightly modify the content of some of the module slides in the webinar or develop a few additional slides based on EPA R4 feedback to the EPA TOCOR. For planning purposes, the contractor shall send by E-mail the final pdf files for the EPA HQ-R4 NPDES WET course sessions to the EPA TOCOR at least one week before the scheduled date for the first webinar course session. If there are any printed materials requested by the EPA TOCOR, the contractor shall ensure that the camera-ready copies of the materials for printing includes all technical updates and editorial corrections. Other specific instructions for preparing for and delivering the webinar course sessions will be provided by the EPA TOCOR through a written technical direction E-mailed to the contractor.

**TASK 3 (Phase 2): (Contract PWS 1.1, 3.2, 3.13) Phase 2- Expert Technical Support on Whole Effluent Toxicity (WET) Test Methods and WET Test Data Statistical Analysis Approaches. No Changes.**

**TASK 4 (Phase 2): (Contract PWS 1.1, 3.3, 3.13): Phase 2 - EPA Draft NPDES Whole Effluent Toxicity (WET) Program Compendium. No Changes.**

**Task 5 (New): (Contract PWS 1.1, 3.4, 3.13) EPA Permit Quality Reviews (PQR) NPDES Expert Technical Support. No Changes.**

**Task 6 (Phase 2): (Contract PWS 1.1, 1.3, 3.3, 3.12, 3.13) Phase 2 - EPA Water Quality Criteria NPDES Implementation Technical Support. No Changes.**

## **5. SCHEDULE OF BENCHMARKS & DELIVERABLES:**

<b>Task/</b>	<b>DELIVERABLE</b>	<b>Schedule</b>
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<b>Subtask</b>		
	<b>Base Period</b>	
<b>0</b>	Monthly Progress Report and quality assurance	Per Contract requirements
<b>1.1</b>	<b>Phase 2 - NPDES Whole Effluent Toxicity (WET) expert national technical support to EPA HQ and Regions</b>	No Changes
<b>1.2</b>	<b>Phase 2 - EPA ICIS/DMR Project <i>WET Test Data Project (WPD/OWM)</i></b>	No Changes
<b>1.3</b>	<b>NPDES Whole Effluent Toxicity (WET) expert technical support to EPA Region 3</b>	No Changes
<b>1.4</b>	<b>NPDES Whole Effluent Toxicity (WET) expert technical support to EPA Region 3 and Region 9 (Regional joint project)</b>	No Changes
<b>1.5</b>	<b>Phase 2 - NPDES Whole Effluent Toxicity (WET) expert technical support to EPA Region 6</b>	No Changes
<b>2.1</b>	<b>Phase 2 - EPA Region 9 NPDES WET Course for Navajo Nation</b>	No Changes
<b>2.2</b>	<b>(New Subtask 2) – EPA HQ NPDES WET Course (Virtual) for EPA Region 1 (June 2022)</b>	<b>Subtask starts upon modification approval by EPA CO.</b>
<b>2.3</b>	<b>(New Subtask 3) – EPA HQ NPDES WET Course (Virtual) for EPA Region 4 (August 2022)</b>	<b>Subtask starts upon modification approval by EPA CO.</b>
<b>3</b>	<b>Phase 2- Expert Technical Support on WET Test Methods and WET Test Data Statistical Analysis Approaches.</b>	No Changes
<b>4</b>	<b>Phase 2 - EPA Draft NPDES WET Program Compendium.</b>	No Changes
<b>5</b>	<b>EPA Permit Quality Reviews (PQR) NPDES Expert Technical Support</b>	No Changes
<b>6</b>	<b>Phase 2- EPA Water Quality Criteria NPDES Implementation Technical Support</b>	No Changes

**Draft** written deliverable(s) for review by the TOCOR shall be prepared in accordance with the schedule in the TO Schedule of Benchmarks and Deliverables.

**Final** written deliverable(s) shall be furnished in accordance with the schedule in the TO Schedule of Benchmarks and Deliverables, after written comments are received from the TOCOR.

**6. QUALITY ASSURANCE (QA) STATEMENT (Contract PWS 4.2, 4.4, 4.5, 4.6, 4.7, 7):**  
**No Changes.**

**7. SPECIAL REPORTING REQUIREMENTS: No Changes.**

**8. GENERAL REQUIREMENTS OF THE TASK ORDER AND SCHEDULE: No Changes**

**9. SURVEILLANCE PLAN: (*discussed in the contract*). No Changes**



ORDER FOR SUPPLIES OR SERVICES						PAGE OF PAGES		
						1	14	
<b>IMPORTANT:</b> Mark all packages and papers with contract and/or order numbers.								
1. DATE OF ORDER 09/22/2021		2. CONTRACT NO. (If any) 68HERC20D0016		6. SHIP TO:				
3. ORDER NO. 68HERC21F0428		4. REQUISITION/REFERENCE NO. See Schedule		a. NAME OF CONSIGNEE  CAD				
5. ISSUING OFFICE (Address correspondence to) CAD  US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136				
				c. CITY Cincinnati		d. STATE OH	e. ZIP CODE 45268-0001	
7. TO: Andrew Parker				f. SHIP VIA				
a. NAME OF CONTRACTOR TETRA TECH, INC.				8. TYPE OF ORDER  <input type="checkbox"/> a. PURCHASE REFERENCE YOUR:  Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.				
b. COMPANY NAME								
c. STREET ADDRESS 10306 EATON PL STE 340				<input checked="" type="checkbox"/> b. DELIVERY  Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.				
d. CITY FAIRFAX		e. STATE VA	f. ZIP CODE 220302201					
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE OW				
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB						12. F.O.B. POINT		
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 09/21/2022		16. DISCOUNT TERMS		
a. INSPECTION Destination		b. ACCEPTANCE Destination						
17. SCHEDULE (See reverse for Rejections)								
ITEM NO. (a)	SUPPLIES OR SERVICES (b)			QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 198549560 TOCOR: Elizabeth Resek Invoice Approver: Elizabeth Resek Alt Invoice App: Janice Alers-Garcia  Continued ...							
SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		\$208,656.02	17(h) TOTAL (Cont. pages) ▲
	21. MAIL INVOICE TO:							
	a. NAME		RTP Finance Center					
	b. STREET ADDRESS (or P.O. Box)		US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts					
	c. CITY Durham		d. STATE NC	e. ZIP CODE 27711		\$208,656.02		17(i) GRAND TOTAL ▲
22. UNITED STATES OF AMERICA BY (Signature)				23. NAME (Typed) Keith Pfeffer TITLE: CONTRACTING/ORDERING OFFICER				

**ORDER FOR SUPPLIES OR SERVICES**  
**SCHEDULE - CONTINUATION**

PAGE NO  
2

**IMPORTANT:** Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 09/22/2021	CONTRACT NO. 68HERC20D0016	ORDER NO. 68HERC21F0428
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 09/22/2021 to 09/21/2022  Development of Biosolids Biennial Report No.9 and Biosolids Technical Documents Requisition No: PR-OLEM-21-00746, PR-OW-21-00647  Accounting Info: 21-22-B-28H-000BD4X20-2505-2128CHH028- 001 BFY: 21 EFY: 22 Fund: B Budget Org: 28H Program (PRC): 000BD4X20 Budget (BOC): 2505 DCN - Line ID: 2128CHH028-001 Funding Flag: Partial Funded: \$168,656.02 Accounting Info: 21-22-B-31C-000DA1-2585-2131CPP014-001 BFY: 21 EFY: 22 Fund: B Budget Org: 31C Program (PRC): 000DA1 Budget (BOC): 2585 DCN - Line ID: 2131CPP014-001 Funding Flag: Partial Funded: \$32,644.20  Firm-Fixed-Price item, fully funded with this award at the price of \$201,300.22.				201,300.22	
0002	Development of Biosolids Biennial Report No.9 and Biosolids Technical Documents: Optional Task 3.1a Requisition No: PR-OLEM-21-00746  Accounting Info: 21-22-B-31C-000DA1-2585-2131CPP014-001 BFY: 21 EFY: 22 Fund: B Budget Org: 31C Program (PRC): 000DA1 Budget (BOC): 2585 DCN - Line ID: 2131CPP014-001 Funding Flag: Complete Continued ...				7,355.80	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$208,656.02

ORDER FOR SUPPLIES OR SERVICES  
SCHEDULE - CONTINUATION

PAGE NO  
3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER  
09/22/2021

CONTRACT NO.  
68HERC20D0016

ORDER NO.  
68HERC21F0428

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Funded: \$7,355.80  Firm-Fixed-Price optional line item that is hereby EXERCISED immediately with this task order award. This item is fully funded at the price of \$7,355.80.					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

## **SECTION B - Supplies or Services/Prices**

### **B-1 Local Clauses EPA-B-32-103 LIMITATION OF GOVERNMENT'S OBLIGATION**

- (a) Severable services may be incrementally funded. Non-severable services shall not be incrementally funded. Contract line item 0001 is severable and may be incrementally funded. For this item, the sum of \$144,500.00 of the total price is presently available for payment and allotted to this item.
- (b) For items identified in paragraph (a) of this clause, the Contractor agrees to perform up to the point at which the total amount payable by the Government, including reimbursement in the event of termination of those items for the Government's convenience, approximates the total amount currently allotted for those items to the contract. The Contractor shall not continue work on those items beyond that point. Subject to the clause entitled "Termination for Convenience of the Government," the Government will not be obligated, under any circumstances, to reimburse the Contractor in excess of the amount payable by the Government in the event of the termination of applicable contract line items for convenience including costs, profit, and estimated termination costs for those line items.
- (c) Notwithstanding the dates specified in the allotment schedule in paragraph (h) of this clause, the Contractor will notify the Contracting Officer, in writing, at least 10 days prior to the date when, in the Contractor's best judgment, the work will reach the point at which the total amount payable by the Government, including any cost for termination for convenience, will approximate 85 percent of the total amount currently allotted to the contract for performance of the applicable items. The notification will state (1) the estimated date when that point will be reached and (2) an estimate of additional funding, if any, needed to continue performance of the applicable line items up to the next scheduled date for the allotment of funds identified in paragraph (a) of this clause, or to a substitute date as determined by the Government pursuant to paragraph (d) of this clause. If, after such notification, additional funds are not allotted by the date identified in the Contractor's notification, or by an agreed substitute date, the Contracting Officer will terminate any item(s) for which additional funds have not been allotted, pursuant to the clause entitled "Termination for Convenience of the Government."
- (d) The parties contemplate that, subject to the availability of appropriations, the Government may allot additional funds for continued performance of the contract line items identified in paragraph (a) of this clause and will determine the estimated period of contract performance which will be covered by the funds. If additional funds are allotted, the Contracting Officer will notify the Contractor in writing. The Contractor shall not resume performance of the contract line items identified in paragraph (a) until the written notice is received. The provisions of paragraphs (b) through (d) of this clause will apply in like manner to the additional allotted funds and to the new estimated period of contract performance. The contract will be modified accordingly.
- (e) The Government may, at any time prior to termination, allot additional funds for the performance of the contract line items identified in paragraph (a) of this clause.
- (f) The termination provisions of this clause do not limit the rights of the Government under the clause entitled "Default". The provisions of this clause are limited to the work and allotment of funds for the contract line items set forth in paragraph (a) of this clause. This clause no longer applies once the contract is fully funded.
- (g) Nothing in this clause affects the right of the Government to otherwise terminate this contract pursuant to the contract clause entitled "Termination for Convenience of the Government".
- (h) The parties contemplate that the Government may obligate funds to this contract in accordance with the following schedule:

RECAPITULATION:

**RECAPITULATION OF FUNDING TO DATE**  
**CONTRACT NO. 68HERC20D0016**  
**TASK ORDER NO. 68HERC21F0425**

**BASE Period of Performance - FROM 09/16/2021 through 09/15/2022**

<b><u>FUNDING ACTION</u></b>	<b><u>FUNDING</u></b>	
<b>Total BASE Period Amount:</b>	\$	144,500.82
Initial Incremental Funding:	\$	144,500.00
Balance Unfunded	\$	0.82

**SECTION F - Deliveries or Performance**

F-1 Local Clauses EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance for line item 0001 (Base Period) of this Task Order shall be from 09/16/2021 through 09/15/2022, inclusive of all required reports.

**SECTION G - Contract Administration Data**

G-1 Local Clauses EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order-Level Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Laura Phillips, 202-564-0741, <a href="mailto:phillips.laura@epa.gov">phillips.laura@epa.gov</a>	(TOCOR)
Jackie Clark, 202-564-6582, <a href="mailto:clark.jackie@epa.gov">clark.jackie@epa.gov</a>	(Alternate TOCOR)

Contracting Officials responsible for administering this contract are as follows:

Keith Pfeffer, 513-487-2034, <a href="mailto:pfeffer.keith@epa.gov">pfeffer.keith@epa.gov</a>	(Contracting Officer)
Kim Loesch, 513-487-2058, <a href="mailto:loesch.kimberly@epa.gov">loesch.kimberly@epa.gov</a>	(Contracting Officer)
Ernie Forrest, 513-569-7414, <a href="mailto:forrest.earnest@epa.gov">forrest.earnest@epa.gov</a>	(Contract Specialist)

**PERFORMANCE WORK STATEMENT**  
**CONTRACTOR: Tetra Tech**  
**CONTRACT NO. 68HERC20D0016**  
**Task Order# 68HERC21F0428**

**Title:** Development of Biosolids Biennial Report No.9 and Biosolids Technical Documents

**Period of Performance:** September 22, 2021 - September 21, 2022

**Task Order Contracting Officer Representative (TOCOR):**

Elizabeth Resek  
Health and Ecological Criteria Division (4304T)  
Office of Water, Office of Science and Technology  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, Washington, DC 20460  
Tel: (202)566-1228, Fax: (202)566-1140  
[resk.elizabeth@epa.gov](mailto:resk.elizabeth@epa.gov)

**Alternate TOCOR:**

Janice Alers-Garcia  
Health and Ecological Criteria Division (4304T)  
Office of Water, Office of Science and Technology  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, Washington, DC 20460  
Tel: (202) 566-0756, Fax: (202)566-1140  
[alers-garcia.janice@epa.gov](mailto:alers-garcia.janice@epa.gov)

**Task Order Type:** Firm Fixed Price Task Order

**Background Information:**

**Biennial Report No.9:** Section 405(d) of the Clean Water Act (CWA) requires EPA to review biosolids regulations every two years to identify additional pollutants that occur in biosolids and to regulate those pollutants if sufficient scientific evidence shows that they may harm (i.e., there is risk to) human health or the environment. The biennial review process is intended to fulfill the CWA requirement to identify additional pollutants that occur in biosolids every two years. It also provides the information and data needed to conduct risk assessments on the pollutants found. EPA develops the final biennial reports by collecting, reviewing and reporting publicly available information and data on the occurrence, human health and ecological effects, and fate and transport in the environment for pollutants that have been found in U.S. biosolids. Biosolids Biennial Reports numbers 1-8 are posted to EPA's website: <https://www.epa.gov/biosolids/biennial-reviews-sewage-sludge-standards>. Biosolids Biennial Report No.8 specifically should be referred to during the development of Report No.9 in this task order (TO).

**Biosolids Technical Documents:** The first biosolids technical document to be developed under this task order (TO) is on the implementation of lagoon requirements under 40 CFR Part 503. EPA's CWA implementing regulations at 40 CFR Part 503 (also referred to as "Part 503")

<https://www.govinfo.gov/content/pkg/CFR-2018-title40-vol32/xml/CFR-2018-title40-vol32-part503.xml> contains requirements for biosolids land application, surface disposal and incineration. Surface disposal sites include: monofills, surface impoundments, *lagoons*, waste piles, dedicated disposal sites and dedicated beneficial use sites. Surface impoundments are disposal sites where biosolids with a high-water content are placed in an open, excavated area. Some lagoons can also be considered dedicated surface disposal sites. If lagoons are used for treatment, they are not considered surface disposal sites. Information on lagoons as they pertain to Part 503 can be found using the following links. Note that the pathogen and vector attraction document is in the process of being updated. The TOCOR will provide the final draft document to the contractor which can be used until the final document is released. The TOCOR also will provide any available additional information and assist coordination with EPA and state subject matter experts relating to lagoons.

- Part 503 Implementation Guidance (1995): <https://www3.epa.gov/npdes/pubs/owm0237.pdf>
- A Plain English Guide to the EPA Part 503 Biosolids Rule: <https://www.epa.gov/biosolids/plain-english-guide-epa-part-503-biosolids-rule>
- Control of Pathogens and Vector Attraction in Sewage Sludge <https://www.epa.gov/biosolids/control-pathogens-and-vector-attraction-sewage-sludge>

The second biosolids technical document to be developed under this TO is a compilation and summary of existing state requirements for the land application of pulp and paper mill residuals (<https://www.afandpa.org/our-products/pulp>). Environmental releases from the pulp and paper industry are variously regulated by EPA under the Resource Conservation and Recovery Act (RCRA) through minimum national standards for design and operation of landfills (<https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview>)<sup>1</sup>, under the Clean Air Act through Maximum Achievable Control Technologies (MACT) (<https://www.epa.gov/stationary-sources-air-pollution/residual-risk-assessment-pulp-paper-source-category>), under the CWA through effluent guidelines (40 CFR Part 430) for pulp, paper and paperboard (<https://www.epa.gov/eg/pulp-paper-and-paperboard-effluent-guidelines>). The land application, incineration, or land disposal of pulp and paper mill residuals is not regulated under Part 503 of the CWA like biosolids. Pulp and paper mill residuals are not considered sewage sludge under Part 503 because they are generated at industrial treatment works. However, pulp and paper mill residuals are often beneficially used as soil amendments and fertilizer in a similar capacity to biosolids. The beneficial use of non-hazardous wastes is regulated under Subtitle D of RCRA. State, tribal, and territorial agencies are primarily responsible for implementing waste programs under Subtitle D. These regulatory bodies make the determination whether to allow a given beneficial use within their boundaries under a wide variety of programs; some that are dedicated specifically to beneficial use and some that are handled under the purview of broader waste regulatory programs. However, federal action may still be taken under RCRA if a finding of imminent or substantial endangerment is made in specific circumstances. The following links provide additional information specific to land application. The TOCOR will provide additional materials if available:

- North East Biosolids and Residuals Association: <https://www.nebiosolids.org/pulp-paper-residuals>
- National Council for Air and Stream Improvement, Inc. (NCASI): <https://www.ncasi.org/technical-studies/sustainable-manufacturing/beneficial-use-of->

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<sup>1</sup> While Subtitle D provides EPA authority to promulgate standards for non-hazardous waste disposal, states have the primary authority to implement and enforce these standards. There are currently no federal standards tailored specifically to land disposal of pulp and paper residuals.

residuals/residual-types-uses/

- American Forest & Paper Association: <https://www.afandpa.org/>

If needed for purposes of technical clarification, use of technical collaboration will be in writing and sent to the Contracting Officer and the TOCOR.

**Quality Assurance:** The contractor shall follow the contract-specific Quality Assurance Plan for: *Technical Support for Assessing, Managing, and Communicating the Ecological and Human Health Risks of Contaminants in Water, Fish and Sediments and of Microbial Pathogens in Surface Waters Solicitation 68HE0C18R0021* and report any quality issues and recommended resolution with monthly progress reports, as necessary, and with final reports.

**Objectives:**

This TO is to develop: 1) the Biosolids Biennial Report No.9 (reporting period 2020-2021); 2) a technical guide on the implementation of lagoon requirements under 40 CFR Part 503; and 3) a compilation and summary of state requirements for the land application of pulp and paper mill residuals.

**Performance Work Statement:**

**Task 1: Communication, Prepare Monthly Progress and Financial Reports, Coordination and Notification**

**SubTask 1.1: Communication/Kickoff Call**

The contractor shall contact the TOCOR and schedule a kickoff project meeting.

**SubTask 1.2: Communication and development of a regular reporting schedule** The contractor shall establish communication with the TOCOR and develop a regular reporting schedule throughout the period of the TO.

**Task 1. Deliverables**

Task	SubTasks	Deliverable	Due
1	1.1	Communication/Kick-off call	Within 3 days of TO Award
1	1.2	Regular reporting schedule	As requested by the TOCOR

**Task 2: Develop Biosolid Biennial Report No. 9 (Review Period 2020-2021)**

The contractor shall develop the biosolids biennial report by collecting, reviewing and reporting publicly available information and data on the occurrence, human health and ecological effects, and fate and transport in the environment for pollutants that have been found in U.S. biosolids. These data may be used to conduct future human health and ecological risk assessments. The contractor shall refer to the EPA's Biosolids Biennial Report No.8 as reference for the previous biennial



review process: <https://www.epa.gov/biosolids/biennial-report-no-8-reporting-period-2018-2019>

**SubTask 2.1.1: Literature Search for Pollutant Occurrence**

The contractor shall conduct a search of open literature published from January 2020 through December 2021 for papers that provide evidence of the occurrence of chemical or microbial pollutants in biosolids in the United States (U.S.) and Canada. Concentration data for both newly found and previously found chemicals in biosolids should be reported. Pollutants found previously in biosolids are contained in the EPA CompTox Chemicals Dashboard Biosolids List:

[https://comptox.epa.gov/dashboard/chemical\\_lists/BIOSOLIDS](https://comptox.epa.gov/dashboard/chemical_lists/BIOSOLIDS). The TOCOR will provide additional information and assistance in confirming the final list of previously identified pollutants in biosolids. Note that occurrence data for the 10 metals currently regulated under Part 503 (arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc) do not have to be searched for and reported.

The bibliographic databases ProQuest, PubMed and Web of Science should be used. Conference abstracts, reports, comments, letters and editorials should be excluded (the contractor may recommend their inclusion, however they must be approved by the TOCOR prior to use).

The contractor shall use the same literature search terms and strings that are reported in the Biosolids Biennial Report No.8 on pages 4 and 5.

**SubTask 2.1.2: Occurrence Literature Selection and Review**

For the papers identified in the chemical and microbial literature searches for the occurrence of pollutants in biosolids, the contractor shall screen the citation titles and eliminate papers based on their titles if it is possible to determine that the papers do not provide relevant data for pollutants that might occur in U.S. biosolids. Studies not related to biosolids or not conducted in the U.S. or Canada should be eliminated from further evaluation.

For the remaining papers, the contractor shall review the abstracts and eliminate papers based on the following criteria:

- Countries had treatment technologies, regulatory requirements or soil types that were not comparable to the U.S. and Canada, and only concentration data were reported. Note that studies for countries that were not comparable to the U.S. and Canada but had other types of data (e.g., toxicity, fate and transport) should not be excluded.
- Endpoints (i.e., overall effects of biosolids on plant growth, crop yield, soil microbe community, or soil nutrients) were not pollutant specific.
- The medium evaluated was not primarily sewage sludge as defined in 40 CFR Part 503. Examples include:
  - influent and effluent wastewater
  - industrial sewage sludge (e.g., pulp and paper mill residuals)
  - activated carbon
  - activated sludge
  - biochar
  - biosolids compost
- Only an analytical method or effectiveness-of-treatment method was described and no data were provided on pollutant concentration in biosolids.
- The study was conducted outside of the U.S. or Canada.
- New classes of chemicals (e.g., nanoparticles) were found in biosolids but no data were available.

Note that papers on nanoparticles and plastics should be retained and documented but information and data should not be extracted and reported.

- Only spiked concentration data were reported.
- There was no evidence of the occurrence of new pollutants in biosolids AND no new data were reported for previously identified chemicals.

The contractor then shall review the full text of the remaining papers. Papers where full text is reviewed may be eliminated using the same criteria listed previously.

Note that no additional data or information beyond occurrence data is required for microbial pollutants.

### **SubTask 2.1.3: Chemical Human Health Data Collection**

EPA uses RfD and RfC values to evaluate noncancer risk associated with oral and inhalation exposures, respectively. Oral CSF and IUR values are used to evaluate risk from carcinogens associated with oral and inhalation exposures, respectively. The contractor shall access the data sources listed in this subtask for RfD, RfC, CSF and IUR values. For chemicals previously identified in biosolids, the contractor shall limit the data search to the period from January 2020 through December 2021. Note that since EPA's Biosolids Biennial Report No.8 was published, the list of previously identified chemical pollutants in biosolids has been reviewed and there will be a subset of the chemicals previously identified in biosolids where the data search should not be limited to the January 2020-December 2021 timeframe. The subset of approximately 260 previously identified chemicals will be provided to the contractor by the TOCOR. For chemicals newly identified in biosolids (i.e., found during this biennial review process), using the same data sources listed in this TO, the contractor shall not limit the search from January 2020 through December 2021.

EPA's Integrated Risk Information System (IRIS) is considered the preferred source for human health toxicity values for most EPA risk assessments and should be the primary source of toxicity values for this review (see Biosolids Biennial Report No.8 source: U.S. EPA 2020a). IRIS does not contain toxicity values for all chemicals and some chemicals in IRIS do not necessarily have all four of the toxicity values. Therefore, the contractor shall search the following list of peer-reviewed, publicly available sources listed in this subtask to obtain oral toxicity values (RfD and CSF) and the inhalation toxicity values (RfC and IUR):

- Human Health Benchmarks for Pesticides (HHBPs): EPA Office of Pesticide Programs risk assessments for pesticides using health effects data submitted during the pesticide registration process (see Biosolids Biennial Report No.8 source: U.S. EPA 2020b).
- Provisional Peer-Reviewed Toxicity Values (PPRTVs): PPRTVs are peer reviewed toxicity values that address chronic and sub-chronic exposure. EPA's Office of Research and Development (ORD) develops PPRTVs in support of EPA's Superfund Program.(see Biosolids Biennial Report No.8 source: U.S. EPA 2020c).
- Health Effects Support Documents (HESDs): EPA's Office of Science and Technology (within EPA's Office of Water) develops toxicity values for chemicals in drinking water in these peer-reviewed documents (see Biosolids Biennial Report No. 8 source: U.S. EPA 2020e).
- Agency for Toxic Substances and Disease Registry (ATSDR): ATSDR develops oral and inhalation minimum risk levels (MRLs) that are oral noncancer toxicity values equivalent to RfDs and RfCs, respectively (see Biosolids Biennial Report No.8 for source: ATSDR 2020).
- California Environmental Protection Agency (CalEPA): CalEPA develops reference exposure levels that are noncancer toxicity values equivalent to RfDs or RfCs, and cancer potency factors that are equivalent to CSFs or IURs (see Biosolids Biennial Report No.8 for source: CalEPA 2015).
- Health Canada: Health Canada develops guidelines and technical documents with tolerable daily intake values that are noncancer toxicity values used in risk evaluation (see Biosolids Biennial Report No.8 for source: Health Canada 2020).

The contractor shall also search for toxicological assessments from EPA program offices, other national and international programs, and state programs. The TOCOR can provide assistance in identifying such assessments.

#### **SubTask 2.1.4: Ecological Data Collection**

The contractor shall use the ECOTOXicology knowledgebase (ECOTOX; see Biosolids Biennial Report No.8 for source: U.S. EPA, 2018d) for all newly identified and existing chemicals to identify the number of papers and number of species, if any, that are available within the timeframe from January 2020 through December 2021. Note that EPA is in the process of determining the best approach for determining ecological endpoints that are to be used for ecological risk assessments. Therefore, no ecological endpoints determined/found in ECOTOX should be reported.

#### **SubTask 2.1.5: Uptake and Transfer Data Collection**

EPA uses risk assessment models that require physical-chemical properties and transfer factors to estimate the potential for chemical transport and uptake from agricultural lands amended with biosolids. Since the Biosolids List is now integrated into the EPA Comptox Chemicals Dashboard and the Dashboard contains measured and predicted values for chemical-physical properties, the contractor no longer needs to collect chemical-physical values for these properties.

For many organic chemicals, the plant and animal product uptake and transfer factors can be estimated using empirical relationships between the transfer factor and log Kow. Bioconcentration factors (BCFs) are preferred over estimated transfer factors, if available. If physical-chemical property data are available, fish BCFs and bioaccumulation factors (BAFs) should be estimated using EPI Suite.

Transfer factors of interest include:

- Air-to-plant transfer factors
- Root uptake factors for above-ground vegetation
- Root concentration factors (for root vegetables)
- Bioconcentration factors for fish
- Bioaccumulation factors for various plants and small fauna eaten by ecological receptors
- Bioconcentration factors for animal products (e.g., meat and milk)

Similar to what was done for the Biosolids Biennial Report No.8, the following data should be searched for and extracted:

- Log BCF (regression-based estimate)
- Log BCF and BAF (Arnot-Gobas upper, mid, and lower trophic; Arnot and Gobas 2006) EPA also searched for and extracted species-specific, field-measured BAFs and laboratory-measured BCFs from two peer-reviewed, publicly available databases—Arnot and Gobas (2006) and Environment and Climate Change Canada (2006)
- Bioaccumulation values published by ORNL (2020).
  - Log BCF or BAF
  - Organism scientific name
  - Organism common name
- The ORNL RAIS database (ORNL 2020) contains additional uptake and transfer data, which were also searched for and extracted.
  - Diffusivities in air and water
  - Soil-to-dry plant uptake
  - Soil-to-wet plant uptake
  - Beef transfer coefficient
  - Milk transfer coefficient

- Soil-water partition coefficient (Kd)
- Organic carbon partition coefficient (Foc)

**SubTask 2.1.6: Reporting Process, Results and Conclusions**

The contractor shall input all data and associated information obtained during the biennial review process into an Excel spreadsheet. The TOCOR will provide the Biosolids Biennial Report No. 8 Excel spreadsheet to the contractor as reference. The contractor shall develop the draft biennial report in Word using the Biosolids Biennial Report No.8 as a template for the format and submit it, along with the Excel spreadsheet to the TOCOR by September 15, 2022. The final biennial report, which should be 508 compliant, should be provided to the TOCOR two (2) weeks after TOCOR review. For purposes of estimating cost, the final report body (excluding tables and figures contained in the body of the report) should not exceed 25 pages. Associated appendices containing references and tables should not exceed 80 pages.

**Task 2. Deliverables**

<b>SubTask</b>	<b>Deliverable</b>	<b>Due</b>
2.1.1-2	Literature Search/Selection of Papers Complete	March 30, 2022
2.1.3-5	Extraction of Data Complete	June 30, 2022
2.1.6	Draft Biennial Report and Master Spreadsheet	September 15, 2022
2.1.6	Final Biennial Report and Master Spreadsheet	Two weeks after receiving final comments from TOCOR

**Task 3: Biosolids Technical Documents**

**SubTask 3.1: Implementation of Lagoon Requirements Under 40 CFR Part 503**

The contractor shall prepare a comprehensive report clearly listing and explaining Part 503 requirements and compiling best management practices for meeting Part 503 requirements for: 1) land application of lagoon-treated sewage sludge for beneficial use, and 2) surface disposal of lagoon-treated sewage sludge for final disposal. The contractor shall review existing EPA and state guidance documents provided by the TOCOR. For purposes of estimating cost the TOCOR anticipates not more than 20 documents to be provided to the contractor. The contractor shall interview subject matter experts identified by the TOCOR and/or the contractor's network of contacts. The contractor may be invited to EPA-organized meetings where lagoon requirements and/or best management practices are discussed. The contractor estimates that there will not be more than 6 subject matter experts and 6 meetings/calls using EPA's TEAMS platform. Each subject matter expert and EPA-organized discussion/call will last not more than 60 minutes. The final document should not exceed 25 pages and shall be 508 compliant.

**Optional SubTask 3.1a: Part 503 Lagoon Requirements Factsheet**

The contractor shall prepare a factsheet, summarizing and highlighting the key findings and information from the Part 503 Lagoon Requirements report. The factsheet shall not exceed six pages

and shall be 508 compliant.

**SubTask 3.2: Report of Existing State Requirements for Pulp and Paper Mill Residuals**

The contractor shall report how U.S. states define residuals from the paper industry. The contractor shall research and compile a comprehensive list in an Excel spreadsheet of state requirements that address environmental releases from the generation, disposal, and/or beneficial use of pulp and paper mill residuals. The list should specify: 1) regulation name and citation, 2) type (air, water, waste), 3) state's website link, and 4) additional links to associated documents and/or information (e.g., factsheets, guidance). The list should contain any contractor notes or comments, as appropriate, for each state. The TOCOR should be able to readily find the information listed in the spreadsheet when using the web links provided. For state requirements specific to land application of pulp and paper residuals used as fertilizer or as a soil amendment (beneficial use), in addition to the comprehensive list of all requirements, the contractor shall develop a report containing a summary of the requirements. The contractor shall also expand on any state guidance and/or best management practices associated with the beneficial use of land applied pulp and paper residuals. For estimating cost, the 508 compliant final report should not exceed 25 pages. This total does not include the Excel spreadsheet list of information, or report tables and appendices.

**SubTask 3.3: Literature Review for Documentation of Concentrations of Organic and Inorganic Constituents Present in or Released from Pulp and Paper Mill Residuals**

Beneficial use involves substitution of a waste, either as generated or following additional processing, for some or all of a virgin material in a way that provides a functional benefit, meets relevant product specifications, and does not pose concerns to human health or the environment. To aid in understanding the potential benefits of land application and the application practices needed to achieve these benefits, the contractor shall conduct a search of publicly available literature for any studies that report agronomic application rates and frequencies for pulp and paper mill residuals and the associated benefits identified for soil quality, crop production, or other improvements. To aid in understanding the potential contaminants associated with this waste stream, the contractor shall conduct a separate search of the literature for documentation of the concentrations of any inorganic and organic constituents that may be present in or released from the pulp and paper mill residuals. In addition to peer-reviewed journals, the contractor shall review any fact sheets or other publications from EPA or USDA.

The contractor shall review the identified literature sources from the U.S. and Canada and compile the following comprehensive lists in an Excel spreadsheet. The information shall be compiled in a manner aiming to be as consistent as possible in summarization of information from different studies to allow for easy and effective filtering of the data based on the following parameters:

- 1) Study ID, 2) sample ID, 3) description on the waste type applied, any information about the manufacturing process that generated the waste (i.e., processes used in paper production at that plant, such as Kraft process), 4) application rate/frequency/duration; 5) any additional amendments applied concurrently with pulp and paper mill residuals and associated rate/frequency/duration (e.g., nitrogen amendment), 6) identified benefits, and 7) any additional notes the contractor identifies as potentially relevant (e.g., lack of benefit without additional amendments, major uncertainties or limitation reported in the study).
- 1) Study ID, 2) Sample ID, 3) description of the waste type, 4) any information about the manufacturing process that generated the waste, 5) concentrations measured in the bulk waste (in mg/kg) and released as leachate (in mg/L) or overland runoff (in mg/L), and 6) the test methods used to measure releases and concentrations. The contractor will also flag for each

constituent whether EPA has currently identified health benchmarks for human or ecological health associated based on the list compiled for biosolids.

<b>SubTask</b>	<b>Deliverable</b>	<b>Due</b>
3.1	Draft Report	45 days prior to end of TO
	Final Report	Two weeks after receiving final TOCOR comments
3.2	Draft Report and Excel Spreadsheet List	45 days prior to end of TO
	Final Report and Excel Spreadsheet	Two weeks after receiving final TOCOR comments
3.3	Draft Report and Excel Spreadsheet List	45 days prior to end of TO
	Final Report and Excel Spreadsheet	Two weeks after receiving final TOCOR comments

**Acceptance Criteria:**

The contractor shall prepare high quality deliverables. Deliverables shall be edited for grammar, spelling, and logic flow. The technical information shall be reasonably complete and presented in a logical, readable manner. Figures submitted shall be of high quality, similar to those in presentations developed for national scientific meetings and should be formatted as jpeg or png files. Additional requirements specific to this TO are as follows: Electronic deliverables must be in an original file format that can be supported by the EPA after the end of the Period of Performance of the TO. The standard office software at EPA is MS Office. Text deliverables shall be provided in Microsoft Word 2010 or compatible format.

### ATTACHMENT 3 QUALITY ASSURANCE SURVEILLANCE PLAN

#### “Technical Support for Assessing, Managing, and Communicating the Ecological and Human Health Risks of Contaminants in Water, Fish, and Sediments, and of Microbial Pathogens in Surface Waters”

Purpose: The requirements performed under this contract are considered performance-based, focusing on the Agency’s desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency’s performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor’s performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the “Contractor Performance Evaluation” clause in the contract). The TOCOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the Contract Level Contracting Officer’s Representative (CL-COR) in preparing the overall evaluations submitted annually in response to the CPE requirements in the contract. The TOCOR for each individual task order will provide the review of the deliverables at the location specified in the identified task order.

General Management and Administration			
Performance Requirement	Measurable Performance Standards	Surveillance Methods	Incentives/Disincentives
<b>Management and Communications:</b> The Contractor shall maintain contact with the EPA Contracting Officer (CO), Contracting Officer’s Representative (COR), and Task Order COR (TOCOR) throughout performance of the contract and shall immediately bring potential problems to the attention of the appropriate EPA TOCOR. In cases where issues have a direct impact on project schedules and/or cost, the Contractor shall provide options for EPA’s consideration on resolving or mitigating the impacts.	Any issues that impact project schedules and/or cost shall be brought to the attention of the appropriate EPA TOCOR within 3 business days of occurrence.	100% of active task orders under the contract will be reviewed by the EPA TOCOR monthly (via Monthly Progress Report) to identify unreported issues. The EPA TOCOR will report any issues to the EPA COR, who will bring the issue(s) to the Contractor’s attention through the EPA CO.	<b>Unsatisfactory</b> rating under the category of Business Relations in the Contractors Performance Appraisal Review System (CPARS) if two or more incidents occur during an applicable period of performance when the Contractor does not meet the measurable performance standards.  Fewer than two incidents per contract period where the contractor does not meet the measurable performance standard will be considered satisfactory performance and will be reported as such in the CPARS Performance Evaluation System under the category of Business Relations.
<b>Timeliness:</b> Services and deliverables shall be in accordance with schedules	During any period of performance, 90% of all submitted	100% of active task orders under the contract will be	<b>Unsatisfactory</b> rating under the category of Timeliness in the CPARS



stated in each task orders, unless amended or modified by an approved EPA action.	deliverables shall be submitted no later than one business day past the due date.	reviewed by the EPA TOCOR monthly (via Monthly Progress Report & milestones established for each deliverable) to compare actual delivery dates against the approved delivery dates. The EPA TOCOR will report any issues to the EPA COR, who will bring the issue(s) to the Contractor's attention through the EPA CO.	<p>when the Contractor does not meet the measurable performance standards during an applicable period of performance.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of <b>Timeliness</b> if the contractor meets the measurable performance standards.</p>
<p><b>Cost Management and Control:</b> The Contractor shall monitor, track and accurately report level-of-effort, labor cost, and other direct cost to EPA through progress reports and approved special reporting requirements.</p> <p>The Contractor shall assign appropriately leveled and skilled personnel to all tasks, practice and encourage time management, and ensure accurate and appropriate timekeeping.</p>	The Contractor shall manage costs to the level of the approved ceiling on the task orders. The Contractor shall notify the EPA TOCOR/COR when 75% of the approved funding ceiling for the work assignment is reached.	The EPA COR will routinely meet with the Contractor's Project Manager to discuss the work progress, and the contract and individual task order expenditures. The EPA COR shall review the Contractor's Monthly Progress Reports and request the TOCOR's verification of expenditures and technical progress before authorizing invoice payments.	<p><b>Unsatisfactory</b> rating under the category of Cost Control in the CPARS when the Contractor does not meet the measurable performance standards during an applicable period of performance.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of Cost Control if the contractor meets the measurable performance standards and accurately reports the costs in the progress reports according to the requirements in the "Reports of Work" attachment to the Contract.</p>
<p><b>Technical Effort:</b> The analyses or products developed by the Contractor shall be factual, defensible, and based on sound science and engineering. All data shall be collected from reputable sources; quality assurance measures shall be conducted in accordance with contract and Agency requirements, and any additional requirements outlined in individual task orders or technical directives. Any work requiring the Contractor to provide options or recommendations shall</p>	All (100%) analyses conducted for EPA by the Contractor must be factual and based on sound science and engineering. All analyses and products (initial and final drafts) shall conform in format and content to requirements specified by the TOCOR in written	EPA will review all analyses conducted and products prepared by the Contractor and will independently consider their merit. EPA may opt to peer review analyses to further validate their merit.	<p><b>Unsatisfactory</b> rating under the category of Quality of Product or Service in the CPARS when the Contractor does not meet the measurable performance standards during an applicable period of performance, even after review input and follow up discussion by Agency personnel.</p> <p>A satisfactory rating will be reported in the CPARS</p>



include the rationale used in selecting the option/recommendation and all other options and recommendations considered.	technical direction, and should meet the objectives stated in the task order. All initial draft documents shall be clearly written at a level appropriate to the targeted audience. All information shall be factual, technically sound, and accurate, with data sources identified.		Performance Evaluation System under the category of <b>Quality of Product or Service</b> if the contractor meets the measurable performance standards.
<p><b>Quality Assurance/Quality Control (QA/QC):</b> The Contractor shall comply with the quality assurance requirements specified in EPA Requirements for Quality Assurance Project Plans (<a href="http://www.epa.gov/quality/qs-docs/r5-final.pdf">http://www.epa.gov/quality/qs-docs/r5-final.pdf</a>) and as required by the EPA TOCOR. The Contractor shall assign appropriately leveled and skilled technical and quality assurance personnel to develop a Quality Assurance Project Plan (QAPP) for all tasks requiring collection or use of environmental data.</p> <p>The QAPP shall be developed in consultation with the EPA TOCOR, and fully approved by the appropriate EPA personnel, before initiation of activities involving environmental data collection or use.</p> <p>Any change in the planned environmental data activities that become necessary during the course of the project shall be fully documented in approved revised versions of the QAPP prior to their implementation.</p>	<p>The Contractor shall notify the EPA TOCOR of any issues that impact project quality within 3 business days of occurrence.</p> <p>The Contractor shall notify the EPA TOCOR and COR within 5 business days of occurrence of any requests to collect or use environmental data without an EPA-approved QAPP.</p> <p>The Contractor shall document all QA/QC activities, including compliance with the quality objectives specified in the QAPP, in Monthly Progress Reports.</p>	100% of active task orders under the contract will be reviewed by the EPA TOCOR monthly (via Monthly Progress Report) to assess contractor compliance with the approved QAPP, and to identify unreported issues related to project quality and requests to collect or use environmental data without an EPA-approved QAPP. The EPA TOCOR will report any issues to the EPA QAO and COR, who will bring the issue(s) to the Contractor's attention through the EPA CO for immediate resolution.	<p><b>Unsatisfactory</b> rating under the category of Quality Assurance/Quality Control in the CPARS if more than three incidents occur during an applicable period of performance when the Contractor does not meet the measurable performance standards.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of Quality Assurance/Quality Control if the contractor meets the measurable performance standards.</p>